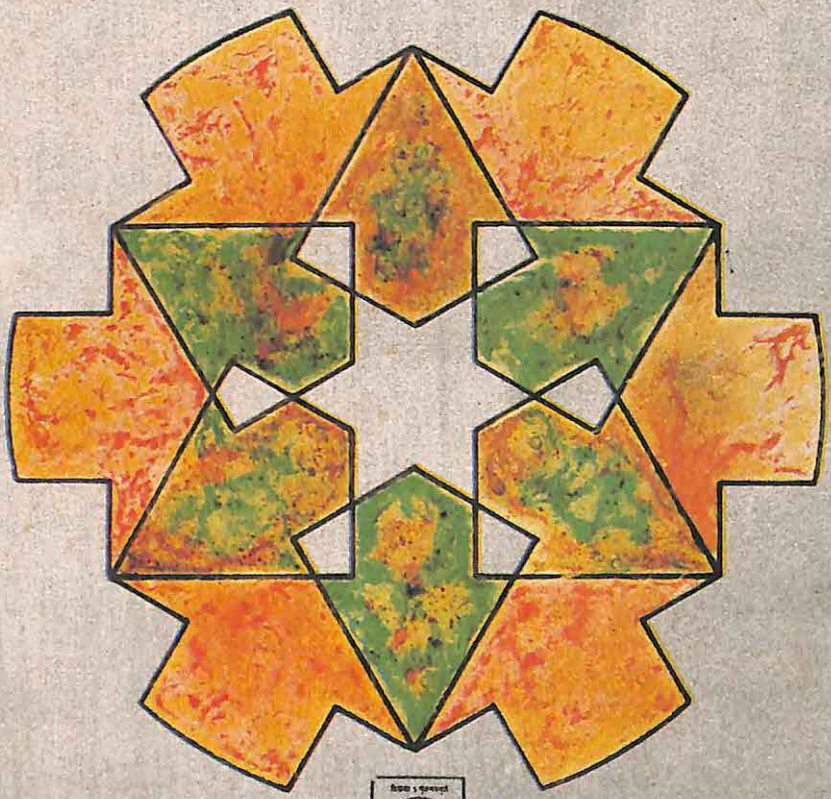
ENVIRONMENTAL STUDIES

TEACHERS' GUIDE

CLASS II



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

Teachers' Guide

Environmental Studies

CLASS II

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ENVIRONMENTAL STUDIES

CLASS II

Dr H.L. SHARMA

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

December 1992
Pausa 1914

P.D. 10T-VSN

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NCERT Campus	CWC Campus	Navjivan Trust Building	CWC Campus
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NEW DELHI 110016	**MADRAS 600064**	**AHMEDABAD 380014**	**24 PARGANAS 743179**

Rs. 7.00

Published at the Publication Department by the Secretary, National Council of Educational Research and Training, Sri Aurobindo Marg, New Delhi 110016, laser typeset at Shagun Composers, 92-B Gali No. 4, Krishna Nagar, Safdarjung Enclave, New Delhi and printed at Supreme Offset Press, K-5 Malviya Nagar, New Delhi 110017

FOREWORD

From their early years, young children constantly interact with their environment. Their interactions provide them with a variety of experiences. The process of education only attempts to help the children structure their experiences by encouraging them to observe, explore, experiment and classify. Such experiences enable the children to develop an understanding of the world around them, acquire the necessary skills and help them in concept formation and in the inculcation of desirable values and attitudes.

Environmental Studies has been included as an important area of curriculum at the Primary School stage. In Classes I and II, the child is introduced to the environment as a whole and no distinction is made between natural and social elements of the environment. From Class III onwards, while the environmental focus continues, Environmental Studies has been bifurcated into two broad areas of study, i.e. Social Studies and Science.

The present Teachers' Guide has been prepared as a part of the package of instructional materials in Environmental Studies at the Primary School stage. In Classes I and II, no textbook for the use of children has been suggested, but suitable guidance is provided to teachers to take up the Environmental Studies programme through teachers' guides. The present book has been prepared for the teachers of Class II to fulfil this need.

The contents of the Teachers' Guide are based on some selected units. Each unit contains revision of the previous work, an overview of the unit, major ideas to be developed through the unit and also essential learning outcomes expected to be attained by the pupils. It includes suggested teaching-learning activities and procedures for evaluation as well. It may, however, be noted that the guidelines given in the book are only suggestive. It is expected that the teacher will study the local environment, explore the educational possibilities in it, and devise his/her own programmes taking into account the local situations, and available resources. It is, however, envisaged that the teacher will involve the pupils in these activities and provide ample opportunities to them to interact with the environment.

The draft of this Guide in Hindi was prepared by Dr H.L. Sharma of the

Department of Non-formal Education and Education of Scheduled Castes and Scheduled Tribes. Prof. A.K. Sharma, Prof. P.N. Dave and Prof. Khaparde have helped in the development of this Guide book. Dr G.S. Srivastava of the Kendriya Vidyalaya Sangathan helped in preparing the English version of the Guide. Prof. (Smt.) R. Muralidharan activated the process of making the manuscript printworthy and Prof. Puran Chand edited the final draft of the Guide. I am grateful to all of them.

I hope that the teachers for whom this Guide has been prepared will find it useful. Comments and suggestions for the improvement of the Guide would be welcome.

Dr K. GOPALAN
Director
National Council of Educational
Research and Training

New Delhi
August 1992

PREFACE

Nothing much needs to be said about the present Teacher's Guide because the philosophy behind the book has been highlighted at various points in the book. Teachers are aware that Environmental Studies is an important area of the curriculum at the Primary School stage. At this level, the aim of teaching Environmental Studies is to help the child learn "from the Environment" and "through the Environment".

Often, it is said that the bags of children are becoming heavier and heavier day by day. Our efforts are directed towards, reducing the weight of children's bags. No textbook is prescribed for teaching Environmental Studies in Classes I and II, nor are copies for class-work/home-work or practical books or exercise books recommended.

The teaching-learning process of Environmental Studies is child-centred with the teacher as a facilitator. The present Teachers' Guide is written to help teachers understand how to facilitate children's learning. A teachers' guide is generally written on the basis of a textbook and is used to guide and help the teachers in teaching the textbook. But in this context, there is no textbook. The present guide book suggests ways and means of teaching Environmental Studies but it is not an exhaustive reference book. It is expected that the teacher goes through the book carefully and carries out with children the various activities suggested. In other words, it serves the purpose of a textbook.

It is hoped that this Guide would help the teachers to develop the required competencies in children and also to frame the questions for assessment/achievement of the children as well as for remedial teaching.

To evaluate the cognitive achievement of children, the formal way of question-answer, discussion, diagrams, charts, posters, etc. related to the content may be of great help to the teachers. But a willingness to share the responsibilities, to be courteous to elders, to take part in the school functions, to cooperate with each other, to maintain oneself and keep the surroundings clean, etc. are aspects which are equally important for which formal evaluation is not possible. The evaluation of the achievement in non-cognitive areas may be done through constant personal observations by the teachers.

Development of curriculum is a continuous process. Curriculum reform and refinement take place based on the experiences of the users. Comments and suggestions from colleagues and fellow-teachers for improvement of the guide would be welcome.

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Department of Pre-School and
Elementary Education, NCERT

August 1992

CONTENTS

SCIENCE RELATED VALUES

Curiosity, quest for knowledge, objectivity, honesty and truthfulness, courage to question, systematic reasoning, acceptance after proof/verification, open-mindedness, search for perfection and team spirit are some of the basic values related to science. The processes of science, which help in searching the truth about nature and its phenomena are characterised by these values. Science aims at explaining things and events. Therefore to learn and practise science :

* Be inquisitive about things and events around you.
* Have the courage to question beliefs and practices.
* Ask 'what', 'how' and 'why' and find your answers by critically observing, experimenting, consulting, discussing and reasoning.
* Record honestly your observations and experimental results in your laboratory or outside it.
* Repeat experiments carefully and systematically if required, but do not manipulate your results under any circumstance.
* Be guided by facts, reasons and logic. Do not be biased in one way or the other.
* Aspire to make new discoveries and inventions by sustained and dedicated work.

ENVIRONMENTAL STUDIES — TEACHING-LEARNING STRATEGIES

What is Environmental Studies?

A child starts reacting to the environment immediately after his/her birth. The interaction leads to experiences, as a result of which learning takes place. As the child grows, the scope of learning increases, and by the time he or she comes to school, he/she already has knowledge of many things. The most important of these is the skill of communication. The child has also acquired elementary knowledge of many phenomena taking place around him/her. However, the skills that he/she has developed and the knowledge that he/she has gained, have to be continuously enhanced, enriched and systematised in the school to enable him/her to develop his/her personality. The process of interaction with the environment has also to be systematized to make the knowledge effective and meaningful. The subject of 'Environmental Studies' has been identified to meet this requirement, as an important area of curriculum at the primary stage.

'Environment' is a broad term. It includes all the aspects which influence the life of the child. In its physical aspects are included things like plants, animals, rivers, ponds, hills, mountains, the earth and sky. In its social aspects are included man-made things like houses, roads, streets, wells, means of transport, etc. and also customs, traditions, festivals, literature, history, etc. The phenomenon of change occurring in both these aspects is also part of the environment. The child's interaction with the environment starts from his immediate environment comprising the family, school, neighbourhood, etc. As the child grows, the horizon of his environment becomes wider. It grows from the known to the unknown and from the concrete to the abstract.

In school curriculum, Environmental Studies has been accepted both as an area of study and as an approach to study. Under the former, the child learns *about* the environment. As an approach to study, the learning takes place *through* it. The third component of the study is learning *for* the environment, i.e. feeling a concern for the environment, its conservation and protection. The approach of its study emphasizes the development of the process of learning i.e. 'learning to learn' which includes the development of learning skills such as observing, enquiring, comparing, analyzing and interpreting. While developing these skills, the child acquires useful knowledge, develops valuable understanding, healthy attitudes and values.

Objectives

The content and process related to the curricu-

lar area of Environmental Studies aim at the development of

- An awareness of the natural and physical environment and the relationship between man and nature;
- An understanding of the social and cultural environment and the relationship between man and his social and cultural environment;
- An awareness of the interdependence between individuals in a family and between individual/family and community for survival and growth;
- Skills like observing, enquiring, comparing, classifying, analyzing, interpreting, etc;
- Habits of cleanliness and healthy living, along with an awareness of the importance of proper environmental sanitation and hygiene around the home and in the community;
- Scientific attitudes, rational outlook and habits of analytical approach, suspended judgement and orderly procedures;
- An awareness of the scientific method of enquiry and its use in solving problems in the home and the community and an appreciation of the role of science and technology in life and the world around him/her;
- An awareness of conserving natural resources;
- A respect for national symbols like the national flag and national anthem, democratic processes and institutions of the country; and for the culture and life styles of persons of other religions, regions and countries; and
- An awareness of the interdependence between different regions in the country, for the growth and development of the nation as a whole, and between different countries in the world for the development of each nation.

Essential Learning Outcomes

The objectives of teaching Environmental Studies indicated above are global and meant for the entire primary stage. To make these specific, the essential learning outcomes, in terms of students' behaviour, will have to be visualized. This has been done in respect of the units included in this teacher's guide.

Teaching-Learning Strategies

In Classes I and II, the child should be introduced to the environment as a whole, without making any distinction between the natural, physical, social and cultural aspects of the environment. In other words, in Classes I and II, Environmental Studies should be taught as a composite course, covering different aspects of the environment. The method of teaching Environmental Studies in Classes I and II should be based on activities which require careful, systematic and well-directed observations by a learner as a means of acquiring knowledge. Children should be required to observe Nature in all its aspects, including the vegetation and animal life around them. They should be helped to sense and feel objects, study their shapes and sizes and to observe things around them. They should also be directed to observe the work people are doing; their customs and traditions, festivals and means of recreation, etc. The students should also be encouraged to participate in these activities of the community.

While developing the programme of Environmental Studies the teaching-learning activities should be child-centred, taking cognizance of the child's learning which has already taken place. Thus the teaching-learning process should be interactive. The psychological

requirements of the child at this stage should be kept in mind.

The teacher should explore the educational potentialities of the environment and devise and design his/her teaching-learning strategies in such a way that students develop the required skills. In doing so, they acquire the necessary knowledge and understanding. The right attitudes and values are also developed through this process.

Classroom Organization

The management and organization of the classroom is an important aspect in any child-centred approach to learning. In this approach the teacher should play the role of a facilitator of learning rather than dispenser of knowledge. The management and organization of the classroom has to be different from a traditional one. Involving children in an activity requires more elbow-space for them, therefore, the seating arrangement has to be accordingly modified. The classroom should have a flexible seating arrangement. Active pupil participation in individual and group activities should be encouraged. Using resources from the environment to supplement the classroom resources is a must for any successful teacher. Some suggestions regarding this are given below.

(a) *Group Activity*

The teacher may often resort to organizing activities in groups. In a class of 40-50 children, this has special advantages. A high pupil-teacher ratio and resource constraints are the realities of our schools. To overcome these, the teacher may set up groups of 5-6 children and supervise their work. Each group can be assigned a particular activity related to the topic under study. The result of each group can then be shared with the rest of the class, through discussions. The teacher may resort to this strategy as per the needs of his/her situation.

Each group member should be assigned a specific role, in conducting and reporting the group work. One member may act as a group leader. The group leader is made responsible for sharing the experience of the group with the rest of the class. The roles of all the members of the group should be rotated, so that each child gets the opportunity to play different roles. Thus, they will learn to take on different responsibilities. Involving children in group activity not only facilitates better learning from peer group interaction but also develops in the children a sense of responsibility and a cooperative spirit.

(b) *Organizing Field Trips*

The teacher as per the need of the teaching learning situation, may have to take children outside the classroom. The outside activity may be in and around the school campus or at a place distant from the school. For any field trip, the teacher should ensure the following:

— The teacher must select the place and make a prior visit to the place in order to plan the trip. He must analyze the situation and note down its potentialities for subsequent activity.

— The teacher must prepare the children for the trip. He/she can advise them on what to observe and how. However, he/she should not be very rigid. He/she should allow the children to make observations which he/she may not have planned for and use these for extension of activities and ideas.

— The teacher must plan the follow-up activities to find out if the objectives of the field trip have been achieved

It is possible that one visit may lead to organizing many activities. These activities may be related to subject areas apart from Environmental Studies such as language, art education,

mathematics, etc. The teacher should explore such possibilities and make use of them.

Evaluation of Learning Outcomes

Since the emphasis of Environmental Studies in Classes I and II is on encouraging children to observe and explore, the assessment of the attainment of the intended learning outcomes will have to be predominantly based on the observation of the performance of learners and on oral questioning. Children should be encouraged to describe their observations and experiences orally. On the basis of day-to-day observation of their performance in carrying out activities and oral questioning, the teacher may assess the level of attainment of each child, after the completion of each unit. The teacher should keep the record of attainment of each child. The evaluation of the performance of learners in Classes I and II should be diagnostic in nature and deficiencies in attainment, if any, should be rectified through remedial instructional/learning activities.

Teachers' Guide

In Classes I and II, no textbook in Environmental Studies should be prescribed for the children. However, a guide for teachers should be prepared. The present guide has been prepared keeping in view this objective. Some exemplar units have been selected. The units are not prescriptive nor are they exhaustive. The teachers will have to design their own units depending upon local situations in the environment. While arranging these units the principle of "from immediacy to remoteness" of the environment has been kept in mind. Even this arrangement should not be taken as prescriptive. Modifications in it can be made according to local situations.

Each unit has the following divisions:

1. *Revision of the Previous Work:* A brief overview of the previous work described in the corresponding unit of *Environmental Studies—Teachers' Guide for Class I* is given to relate it with the previous knowledge of the children.

2. *Overview:* This indicates the importance of the unit and the major ideas expected to be developed through the teaching programme of the unit. The content of the unit flows from these ideas.

3. *Essential Learning Outcomes:* The specific outcomes related to the unit are indicated here. The outcomes include both the behavioural aspect and the content. The teacher has to devise his/her teaching-learning programme keeping in view the expected behavioural changes and the content.

4. *Suggested Teaching-Learning Activities:* As indicated, activities in this section are purely suggestive. The teacher will have to take into account the available resources and facilities. More often he/she will have to devise his/her own strategies. The suggested activities are just to provide general guidelines. Hints about teaching aids are also provided. Here, again, the teacher will have to depend on the available resources. It is however to be remembered that visual aids and activities are very helpful in achieving the identified learning outcomes. The compentency(ies) to be attained by each child are indicated in the box at the end of each activity.

5. *Evaluation:* The questions given at the end of units are to be asked orally. The procedure and questions included in this section are suggestive. The teacher will have to devise his/her own procedure and frame the questions depending upon the situations. He/she may, however, take some guidance from the procedures and questions indicated in each unit. For evaluation of the habits and values acquired by children, the teacher should depend on the observation teachnique.

OUR BODY

Revision of the Previous Work

In Class I an attempt was made to give children structured knowledge about the external parts of their body. All human beings have similar body parts-head, neck, chest, belly, limbs, etc. But their size, shape, colour, etc. differentiate one from the others. These parts have different functions. Children learnt primarily about the functions of their sense organs. Their attention was also drawn towards similarities and dissimilarities between the characteristics of their body parts and those of others. An attempt was also made to inculcate in them habits of personal hygiene for good health.

Overview of the Unit

Continuing the concepts developed in Class I, in this unit the teachers should familiarise the children with the changes that take place in their body with age, like increase in height and weight. They should inculcate the habit of keeping various body parts clean, by observing rules of personal cleanliness. The children should also learn how to use toilets and urinals at home, in school and in the community. Relationship is to be established between the health of the body and its cleanliness by practising habits of personal cleanliness. Children should be told that to keep good health, adoption of correct postures while reading, writing, sitting, standing, walking are as essential as rest, sleep and exercise.

Essential Learning Outcomes

After going through the suggested teaching-learning activities proposed in this unit, the child will be able to:

- find similarities between their body parts and those of others and also tell differences based on height, fatness, colour of hair, skin, eyes, etc.;
- describe externally visible changes — increase in height and weight — taking place in him and his classmates with age;
- follow habits of personal hygiene and keep their body parts clean;
- establish relationship between practice of habits of personal hygiene and good health;
- keep correct postures while reading, writing, sitting, standing, walking, etc. (Emphasise the need for sufficient rest, sleep and exercise to become healthy);
- use latrines and urinals properly at home, in school and in the community.

Suggested Teaching-Learning Strategies

Teaching Aids

Though no special teaching equipment is needed for teaching this unit, the teacher may use (i) charts depicting body parts, (ii) charts showing rules of health and hygiene, and (iii) illustrations of latrines and urinals.

Activities

The teacher asks the children to identify various parts of the body. He calls one child to the front of the class and pointing towards his body parts, asks their names. He helps the children to systematise their knowledge of the body, particularly of the sense organs. Children may be helped to appreciate why they look different from one another despite the similarity of body parts. Their attention may be drawn to the size, shape, height, fatness, colour of skin, hair, eyes, etc. They will be helped to understand that all of us have similar body parts but each one of us looks different from the other.

The children will be able to describe similarities between their body parts and those of others and will also enumerate the differences in size, shape, height, fatness, colour of skin, hair, eyes, etc.

Activities

The children have already developed the ability to point out similarities and dissimilarities in their bodies. They will be asked to bring their old clothes used in the previous year and to try to put them on. Obviously, the old clothes will not fit their grown up bodies. This will be an appropriate opportunity to discuss growth of the body. In the beginning of the session, the height and weight of some children will be recorded on a chart. The same process will be repeated after a few months. The children will observe the changes in the recordings on the chart and will infer that with age, height and weight also increase.

Medical cards/reports of the previous year may also be compared with those of the current year to impress this fact.

The children will be able to describe increase in height and weight resulting from increase in age.

Activities

The teacher discusses rules of personal health and hygiene e.g. bathing, washing clothes, cleaning nails, etc. taught in the previous class. He points out which of these rules children normally practice and which of them they normally neglect. He will pay attention to those children who do not wash their hands before and after lunch.

The children will practise habits/ rules of personal health and hygiene and keep their body parts clean.

Activities

The teacher ensures that children practise habits of personal hygiene. They should wash their hands properly after visiting the toilet, and before and after taking meals. Their attention should be drawn to taking a bath, cleaning teeth and hair daily and cutting their nails and wearing clean clothes. Insanitation leads to diseases and diseases cause harm to health. Children may, perhaps, not be able to establish relationship between personal health and hygiene but this much they surely realise that practice of rules of hygiene is essential for keeping good health.

The children will be able to enumerate habits of personal hygiene.

Activities

Correct postures while reading, writing, sitting, walking are essential for health. The correct postures of the human body have been shown on pages 10-11 of *Enviromental Studies, Class I - Teacher's Guide.*

The children should be given practice in these postures in the classroom. The teacher discusses and explains that along with maintaining correct postures, sufficient rest, sleep and exercise are also essential. This can be explained by asking questions such as — Do you like to work when you feel sleepy? Do you feel like doing some work when you are tired? By answering these questions, children also realise the importance of games, yoga and exercise.

The children will maintain correct postures while reading, writing, sitting, standing and walking. They will also be able to explain the need for sufficient rest, sleep and exercise for good health.

Activities

The teacher talks about the importance of hygiene. Attempt has been made to correlate habits of personal hygiene and good health. To remain clean, cleanliness of the home and the surroundings is also essential. Children have learnt to help parents in keeping their home clean. It is possible that some children may not use toilets and urinals properly. The teacher tells them how to use them properly. If these places are dirty, they pollute the surrounding area which directly affects the health. The teaching process becomes natural and effective if charts depicting the correct way of using different types of toilets and urinals are shown.

The children will learn the proper way of using toilets and urinals at home, in school and in the community.

Evaluation

For assessment of the attainments of the children, the formal type of evaluation is not recommended at this stage. When the children are engaged in various activities, the teacher should closely observe them and maintain a consolidated record of their knowledge and interest in activities. The evaluation of essential learning outcomes cannot be restricted to only classroom activities, learning outcomes of field trips and outdoor activities may also be utilised for evaluation.

Evaluation can also be based on their activities in daily routine programmes. It can also be based on question-answers, discussions, picture reading and interpretation of diagrams and line sketches. In fact, the teacher himself should adopt an evaluation technique and frame questions best suited to the child's conditions and surroundings. At this stage oral technique should predominate but the children may be asked to write answers in short sentences. They may be asked to answer questions written on the blackboard. Discussion on the answers given by the children may be encouraged.

Questions may be formed on the pattern given in *Environmental Studies — Class I: Teachers' Guide.* From the next class onwards formal techniques will be employed for evaluating children. Hence, in this class, the children should gradually be led to formal evaluation. For the

guidance of the teachers a few suggestive questions are given below:

A. A few answers are given below for each question. Get tick marked (√) the correct answer.

1. Eyes help in
   a. seeing.
   b. hearing.
   c. walking.
   d. smelling.
2. All human beings have
   a. similar body parts.
   b. parts similar to those of a monkey.
   c. parts similar to those of a cat.
   d. parts similar to those of a chimpanzee.
3. With the increase in age
   a. height increases but weight decreases.
   b. weight increases but height decreases.
   c. both height and weight increase.
   d. neither height nor weight increases.
4. To keep ourselves clean,
   a. we have to work hard.
   b. we don't have to work hard.
   c. we have to follow certain habits.
   d. we do not have to follow any habit.
5. The quality of cleanliness is acquired
   a. automatically without any external help.
   b. from parents and the environment.
   c. from the school.
   d. from peers and friends

B. Get tick marked (√) the correct statement and cross marked (x) the wrong one.

1. All parts of our bodies are similar.
2. All parts of our bodies appear to be different.
3. Eyes, ears, nose, tongue and skin are called sense organs.
4. The habit of personal hygiene is not essential for keeping the body healthy.
5. The function of one part of the body cannot be performed by some other part.
6. Nobody can be recognised without being seen.
7. By hearing one's voice, we may recognise him.
8. Keeping toilets/urinals clean at home is the responsibility of the household.
9. We should definitely wash hands before taking meals.
10. Wearing clean clothes is not necessary.

C. Get the blanks filled in with suitable words.

1. The function of the eye is_____.
2. The function of the nose is_____.
3. The function of the tongue is_____.
4. The function of the belly is_____.
5. With age, the _____ increases.
6. With age, the_____ increases.
7. Old clothes of the previous year do not fit me as my _____ has increased.
8. Teeth should be cleaned _____.
9. Hands and mouth should be washed _____.
10. Defecation and urination should _____ be performed anywhere.

D. 1. Get the following table completed.

Names of sense organs	*Functions of sense organs*
Eyes	
Nose	
Tongue	
Skin	
Ears	

2. Get the names of various body parts written.

a) _____ b) _____ c) _____
d) _____ e) _____ f) _____
g) _____ h) _____

3. Get the words written in column A matched with those written in column B.

Column A	*Column B*
Nose	to taste
Ears	to see
Eyes	to smell
Skin	to hear
Tongue	to walk
Legs	to digest food
Belly	to chew food
Teeth	to feel

OUR FAMILY

Revision of the Previous Work

The family is a very important component of the child's social environment. Here he is brought up, he grows, learns his mother-tongue and also the traditions and customs of the family. In Class I, children learnt that the family consists of parents, grandparents, brothers, sisters and others. For the management of the family, each member plays an important role. Members have different functions and duties. On the basis of experiences of children their knowledge related to food items, dress, ornaments, means of recreation, festivals and functions has been systematised.

Overview of the Unit

Children are to be made aware that a small family is a happy family. The concepts of mutual relationship in the family, functions of the members of the family, advantages of a small family, division of work amongst the family members, mutual cooperation, food habits, dresses, ornaments, festivals and functions, etc, should be developed.

Essential Learning Outcomes

After going thourgh the teaching-learning activities suggested in this unit, the children will be able to :

- compare their family and the neighbouring family with regard to number of family members, their domestic work, customs and traditions, etc.;
- describe different types of food prepared in the family;
- explain the importance of having a small family;
- describe the importance of hygienic food;
- practise proper food habits;
- protect food from dust, dirt, flies, mosquitoes, etc.;
- develop the habit of wearing clean clothes and maintaining them properly;
- identify cotton, woollen, and silk clothes;
- describe the importance of wearing clothes according to need, occasion and climate/season;
- help the elders during festivals and functions.

Suggested Teaching-Learning Activities

Teaching Aids

Though teaching aids are readily available in the surroundings, the unit becomes more interesting and meaningful with the help of (1) various items of food, clothing, etc., (2) charts depicting food-stuff, clothes, (3) charts showing small and large families, and (4) charts showing correct food habits, etc.

Activities

The teacher asks the children to talk about the number of members in their family, their names, mutual relationship, nature of work, life-style, food habits, etc. He lists out on the blackboard information given by the children. He ini-

tiates discussion on the analysis of this collected information with the help of children, the teacher compares life-styles, food habits, number of family members, various activities carried out by the family members. He asks the children to draw conclusions and helps them in systematising their conclusions. He encourages them to compare their family and the neighbouring family on these lines.

The children will be able to compare their family and the neighbouring family with regard to the number of family members, activities carried out by them, life-style and food-habits. They will also be able to point out the importance of having a small family.

Activities

The list of food items given in the activities on page 14 of *Environmental Studies — Class I : Teacher's Guide*, may be revised and reproduced. He asks the children to identify food items. Food items brought in tiffin-carriers by the children may also be used for identification. He initiates discussion on the preparation of some of these items.

The children will be able to identify and describe food items and the ingredients with which they are prepared.

Activities

The teacher discusses the environment as it should be while eating. Taking meals in clean and hygienic surroundings is a pleasant experience. Exposed food gets infected due to dirt, dust, flies, mosquitoes, etc. Infected food causes diseases and ruins the health. Hygienic food not only develops health but also pleases the mind. Hands should always be washed before taking meals. Food should be chewed properly.

The teacher discusses healthy food habits. He observes children when they are taking lunch. He inspires them to practise healthy habits. He makes them aware of the harm caused by taking food sold in open stalls, exposed to dirt, dust, flies, etc. He encourages them to carefully observe how food items are protected from these at home. He should ask the children to discuss the same with their parents. Children should be encouraged to narrate in the class, their observations made at home. Charts showing methods of keeping food items safe and taking meals properly may be displayed.

The children will be able to discuss the importance of hygienic food. They will be able to practise healthy food habits. They will also be able to protect food items from dirt, dust, flies, etc.

Activities

The teacher points out that neatly dressed children are liked by all. They are protected from various diseases. He observes children closely and inculcates in them the habit of wearing neat and clean clothes.

He regularly inspects their clothes and their style of wearing them. He ob-

serves how they keep their books, exercise books, etc. in their bags and encourages them to keep these things in order. He discusses how they keep their clothes, books, etc. at home. He shows them samples of different types of cloth and makes them identify cotton, woollen, silk and synthetic cloth. He discusses the need of wearing clothes according to seasons and climates.

The children will keep their clothes neat and clean. They will practise the habit of keeping their clothes carefully. They will be able to identify different types of cloth such as cotton, woollen and silk.

Activities

The teacher discusses the importance of wearing clothes according to need, occasion, climate and season. They may be told that sufficient and suitable clothes should be worn to protect the body against heat and cold. The teacher makes them realise the importance of wearing proper clothes suitable for various needs. He also discusses clothes worn by the children in class.

The children will be able to explain the importance of wearing clothes according to need, occasion, climate and season.

Activities

The teacher finds out from the children which festivals and functions are celebrated in their homes and how they are celebrated. The information may be listed out on the blackboard. The children should be helped to derive their conclusions.

He then finds out which activities are performed by the family members in celebrating them. He also finds out what the children should do on these occasions. This information may be listed out on the blackboard and the children helped to derive their conclusions. He encourages the children to help their elders at home on the occasions of festivals, functions, etc. and inculcates in them the habit of completing the work assigned to them.

The children will actively help the family members in celebrating festivals, functions, etc.

Evaluation

To evaluate the children's achievements, observation of their role in routine activities, question-answer sessions and discussion techniques may be employed. Evaluation may be made by observing how the children take meals, wear clothes, arrange books in bags and so on. A few suggestive questions are given below.

A. Get the most appropriate answer tick marked (√).

1. A small family is a happy family because
   a. grandparents do not live there.
   b. children are well brought up.
   c. limited resources are well utilised.
   d. it includes only parents and their children.

2. A happy family is one in which
   a. all work together.
   b. everyone loves and cooperates.
   c. all get equal facilities.

d. all respect one another.

3. It is the responsibility of the family to provide
   a. proper education to the children.
   b. proper food to the children.
   c. proper clothes to the children.
   d. all the above mentioned things.

B. Get tick marked (√) the correct statement and cross marked (x) the wrong one.
   1. A small family is not a happy family.
   2. A small family has more facilities.
   3. Family life helps develop mutual love and cooperation among the members.
   4. Balanced food is essential for good health.
   5. Small children are not required to work at home.
   6. Washing hands before taking meals is not necessary.
   7. Children's duty is only to study.
   8. Hot and spicy food is harmful.
   9. The longer food is cooked, the better it becomes.
   10. Customs and traditions of the family do not affect the children.

C. Get the blanks in the following sentences filled in with suitable words from those within brackets.
   1. Parents, children and grandparents constitute a _____. (home, family)
   2. It is the responsibility of the family to keep the children _____. (happy, unhappy)
   3. To protect food from dirt, dust and flies, it should be kept _____. (exposed, covered)
   4. Limited resources can be utilized better in a _____ family. (joint, single)
   5. Woollen clothes protect us from _____. (heat, cold)
   6. The family consisting of parents and their children is called _____. (single family, joint family)

D. Get the correct answers written.
   1. A small family is a happy family because
      a.
      b.
      c.
   2. Hygienic food is good for health because
      a.
      b.
      c.
   3. A happy family is one in which
      a.
      b.
   4. Clothes should be carefully kept and stored because
      a.
      b.
   5. Food items should be kept covered because
      a.
      b.
   6. The advantages of a joint family are
      a.
      b.
   7. Meals should be taken hygienically because
      a.
      b.
   8. Tight clothes should not be worn

because

a.
b.

9. The advantages of a small family are
a.
b.

10. The disadvantages of a big family are
a.
b.

11. Name two fruits which are eaten uncooked, unwashed.
a.
b.

12. Name two vegetables which need not be cooked before eating.
a.
b.

13. Rotten and dirty food items should not be eaten because
a.
b.

14. Only as much food should be taken in a plate as can be eaten because
a.
b.

15. Children should help parents at home because
a.
b.

OUR HOUSES

In Class I the children have been told about different types of houses — big and small, pucca and kutcha. They have also been told that houses differ in size, shape and mode of structure, that there are separate places in the house for storing things, washing clothes, toilet, etc. and that the house is made for safety and comfort.

Overview of the Unit

The concepts developed in Class I, will be continued and developed. They include important areas like identification of different types of building materials such as bricks, stones, clay, timber, grass, bamboo, tiles, tin, etc. used in constructing kutcha and pucca houses and familiarisation with the professional names of the persons involved in constructing the houses such as electrician, mason, architect and carpenter. A good house should have proper ventilators and windows and should have separate places for sleeping, cooking, bathing, defecating, etc. Domestic animals and cattle should be kept separately. The house should have sufficient provision for light and air. A properly ventilated, clean house is necessary for healthy living. This unit also aims at creating in children awareness of cleanliness and developing in them the habit of helping the older family members in cleaning the house.

Essential Learning Outcomes

After going through the teaching-learning activities proposed in this unit, the children will be able to :

— describe the characteristics of a good house;
— list various building materials used in construction of houses;
— get familiarised with various professional names associated with construction of houses and describe their functions;
— keep their houses clean.

Suggested Teaching-Learning Strategies

Teaching Aids

Houses available in the environment may be shown. Models and charts of houses of different areas, shapes, sizes and those using different building materials may be effectively used. Charts depicting different types of buildinig materials such as bricks, stones, timber, iron may also be used.

Activities

The teacher takes the children around to see a few houses, big and small, and draws their attention to cleanliness and the provisions for light and air, windows, doors, and separate rooms for different purposes, namely, sleeping, cooking, bathing, etc. He also displays charts of houses of different sizes and types. He talks to them about their houses. After showing them houses in the neighbourhood, he asks them which houses they like and why; why it is necessary to pay special attention to cleanliness and to make provisions for light

and air, facilities, security and separate places for different purposes. He impresses upon them that a good house need not be modern or costly; a good house can be constructed even on a small budget. He shows them urban/rural houses which are inexpensive but good. Through discussion, he helps them to infer the need for ventilators, doors, windows, separate rooms for different purposes, kitchen-chimney to provide outlet to smoke, proper drainage for kitchen and bathroom water to flow out. Thus he enables them to infer the characteristics of a good house. They should also be told that the shape of the house changes according to the climate of the place. If houses of various shapes are not to be found in the neighbourhood, pictures may be used.

Children will be able to differentiate between kutcha and pucca houses and will be able to describe characteristics of a good house, namely clean, airy, having provision for light and air, having separate rooms for different purposes and providing facilities and safety.

Activities

Children may be taken to a construction site to enable them to get first-hand knowledge of the building materials used in construction. They may be encouraged to discuss items of building materials and prepare a list of such items. They may draw sketches of the houses. They may collect from newspapers and magazines, pictures of different types of houses. The teacher asks them to observe and make a list of the items of building materials used in construction in their localities. The question-answer technique may be employed to help them identify such items as bricks, cement, concrete, iron-bars of various types, bamboos, grass, timber, etc.

Children will be able to identify and name building materials such as stone, brick, sand, lime, iron, cement, timber, bamboo, grass, tiles, etc.

Activities

Children may be taken to an area where construction work is in progress. They observe that a large number of men are engaged in construction work. They should be encouraged to talk to some of them and ask them their professional names such as mason, artisan, carpenter, contractor, overseer. They may be advised to observe people engaged in construction work in their localities and learn their professional names. This enables them to realise that a large number of men make valuable contribution to construction work. The teacher discusses that a large number of men are involved not only in constructing houses but also in making our life comfortable. Cooperation of all men is necessary for the smooth functioning of the family and society. It is expected that children should develop appreciation for the dignity of labour and the importance of labour

Children will be able to learn the professional names of people engaged in construction work and describe their functions.

Activities

Utilising their previous experiences of cleanliness in houses, the teacher talks to them about the utility of clean houses. He instils in them the feeling that keeping the house clean is essential for a happy and comfortable life. He explains that cleanliness of the house and good health are closely inter-related. He tells them how to keep the house clean and encourages them to help the elders in cleaning the house. He makes them understand that unhygienic surroundings cause many types of diseases and so they should clean their houses daily and throw garbage in the dustbin. They should appreciate the importance of cleaning the house and understand the harm resulting from not doing so. To make them realise the importance of cleanliness, the teacher asks them to clean their classroom and arrange things properly. This situation may prove useful in evaluation.

Children will be able to keep their houses and classrooms clean.

Evaluation

For the evaluation of children's achievements, the techniques of question-answer, discussion, making charts and pictures related to the subject may be used. Though at this stage oral and informal evaluation techniques are recommended, a few sentences by way of formal evaluation may be got written. To observe their habits of cleanliness, the activity of classroom cleanliness by small groups of children may be evaluated. The teacher may frame questions of the type given in the Teacher's Guide on Environmental Studies for Class I. He may also frame questions as given below, which are only suggestive.

A. Get the following statements suitably tick marked (√) against the right statement or cross marked (x) against the wrong one.
   1. Kutcha houses built with clay are not good.
   2. Pucca houses are always good.
   3. Good health is maintained only by living in pucca houses.
   4. Expenditure on construction of houses should be as little as possible.
   5. A house cannot be constructed with limited money.
   6. Expensive houses are good for the health.
   7. The more closed a house is, the better it is.
   8. Clean and open houses are good for study.
   9. Functions of masons, artisans, carpenters and others are not different.
   10. A pucca house is always suitable from the safety point of view.
   11. All family members should cooperate to keep the house clean.
   12. Good health and clean house are not inter-related in any way.
   13. Houses are required for comfort and safety.
   14. Safety is the birthright of every man.
   15. Children should not clean their houses.

B. Get the blanks filled in with correct words.
   1. An airy house is _____.
   2. The man employed in masonary is

called a _____ .

3. A good house should have provision for _____ and _____.
4. A house can be _____ even at low cost.
5. The man who makes wooden doors, windows, furniture, etc. is called a _____.
6. The helper in masonary work is called a _____.
7. Children should help _____ to clean the house.
8. The bathing place in the house is called a _____.
9. The cooking place in a house is called a _____.

C. Get the correct answer tick marked (√).

1. The man engaged in masonry work is called
   a. labourer.
   b. mason.
   c. architect.
   d. contractor.
2. A house is required because
   a. it provides safety.
   b. it provides comfort.
   c. it provides all sorts of facilities.
   d. it provides all the above.
3. A house is required for
   a. men.
   b. animals and birds.
   c. domestic animals.
   d. all

D. Ask the children, which of the following is required for pucca houses and which for kutcha houses. Get it tick marked (√) in the column against the material.

Material	*Kutcha houses*	*Pucca houses*
Bricks		
Grass		
Tiles		
Cement		
Clay		
Bamboos		
Timber		
Stones		
Doors		
Windows		
Cowdung		

OUR SCHOOL

Revision of the Previous Work

The children have become familiar with the school building, playfields, water point, library, etc. They recognise and know the names of different places fixed for different activities. They also recognise items of daily use such as blackboard, chair, table, *tatpatti, durry,* slate, book and pencil. During one year of schooling they have participated in all the functions organised in the school. They have learnt about different school programmes. They are fully acquainted with the daily activities of the school. They have shouldered the responsibilities which may have been assigned to them during school celebrations and learnt to participate in the morning assembly and other school activities as per directions. They have learnt how to receive guests and how to greet others. They have got some idea of the different functions performed by the school staff.

Overview of the Unit

It is expected to introduce the children systematically to the school premises and school activities. It is also expected to acquaint them with the functions of Headmaster, teachers, clerks and others and make them actively participate in school programmes and celebrations. They should realise their responsibility in school programmes and participate in the morning assembly, health inspection programme, cleanliness-drive, etc. and make sketches of school building, playfield, etc. They must realise that the school property is their own and that it is their duty to protect it. They must practise the habit of giving due respect to teachers and other school staff and affection to their peers.

Essential Learning Outcomes

After going through the teaching-learning activities proposed in this unit, the children will be able to :

- list out the functions of the school staff, namely teachers, clerks and others;
- give due respect to all and maintain mutual love;
- cooperate in cleaning their classrooms and school premises;
- look after the school building and school property suitably;
- participate in the daily programmes and celebrations organised in the school, and shoulder the responsibilities assigned to them;
- learn a few poems on patriotism, cooperation and love for fellow-beings.

Suggested Teaching-Learning Strategies

Teaching Aids

Charts depicting pictures and sketches of school building, classrooms, playfields, water point, etc. and compilation

of poems on patriotism, cooperation and love for fellow-beings may be effectively used.

Activities

The teacher acquaints the children with the functions of the Headmaster, teachers, clerks and other employees. He encourages them to meet the employees formally and informally and ask them about their duties and functions. He discusses their functions in class.

The children will be able to list out the functions of the Headmaster, teacher, clerk, *chowkidar* and others.

Activities

The teacher teaches the children to sketch. The children may be asked to draw line on dotted sketches. Charts displaying the pictures of the object along with the sketch may be shown. They may be encouraged to draw free-hand sketches of the school building, classrooms, playfields, etc.

The children will be able to draw sketches of the school building, classrooms, playfields, water point, etc.

Activities

The children have been made well aware of the importance of cleanliness. The attention they pay to cleanliness in maintaining their clothes, bags, etc. must have been assessed. The children should be divided into small groups and a time-table should be made fixing their responsibility in cleaning the classroom and the school premises. A committee may be formed to assess the work of the children to encourage them and, if possible, to give them awards.

The children will realise the importance of keeping their classrooms and the school premises clean and help in cleaning them.

Activities

The feeling of unity and oneness necessarily leads to the growth and development of the feeling of love. The feelings and values developed in childhood remain naturally dominant throughout life. It is a fact that if the children realise that public property belongs to no one but to themselves, the feeling of possessive love will generate feelings of oneness and unity. Formal and informal discussions should be held from time to time and the children's activities observed. Discussion and observation may be made the basis of assessment.

The children will carefully look after the school building, property and equipment.

Activities

The teacher gives the children responsibilities according to their capacity in programmes organised in school from time to time. He guides them to enable them to shoulder their responsibilities well. He encourages them to participate in school activities and gives them the opportunity of observing senior students and teachers when they share

their responsibilities, receive guests, etc. during important school functions. Functions on small scale may be organised in classes to give them experience of what they are expected to do. Efforts should be made to ensure that every child in the class participates in school programmes and celebrations and class activities and shoulders the responsibilities entrusted to him.

> The children will participate in celebrating, functions and routine activities of the school and shoulder their responsibilities.

Activities

Though many good poems on patriotism, cooperation, affection, good manners and habits, etc. have been prescribed in textbooks, the teacher may select suitable short poems at his level to make teaching more interesting . He makes the children learn short poem and arranges recitation in class. Discussion on the meaning and central idea of the poems should follow. He gives them maximum opportunities for learning good manners and ways of participating in school programmes.

> The children will learn and recite short poems on patriotism, cooperation, good manners, national integration, etc.

Evaluation

Question-answer technique may be employed for evaluation. Charts on the subject may be used. Students may be asked to list out functions of the Headmaster, teachers, clerks and others.

Good manners, sense of responsibility, participation in school programmes, good habits and behaviour cannot be suitably assessed through question-answers. For proper assessment, teachers should maintain observation charts and anecedotal and behavioural records. Functions and activities organised in the school give the children the opportunity of learning good manners, proper ways and a sense of responsibility. They also provide the teacher the opportunity of evaluation.

A few suggestive questions are given below.

A. Get the following statements suitably tick marked (√) against the right statement or cross marked (x) against the wrong one.

1. The functions of the Headmaster and teachers are slightly different.
2. Teaching is one of the duties of a clerk.
3. Only small children can participate in cleanliness drives.
4. The responsibility of respect and love is not one-sided.
5. Elderly people should be saluted first.
6. No single class is responsible for the cleanliness of the school premises.
7. There should be no compulsion for attending the morning assembly.
8. Only some children should participate in school functions and programmes.
9. Children should not be involved in cleaning the classroom.
10. Children should not do any work during school functions and celebrations.

11. Children have no responsibility in protecting school property and equipment.
12. Celebrations of functions/ programmes in school is a waste of time.
13. Learning poems on patriotism, co-operation, etc. is of no use.
14. Children learn a lot from the behaviour of teachers.

B. Get the blanks filled in with suitable words.

1. The complete responsibility of the school is of _____.
2. The main duty of the teacher is _____.
3. The main duty of the Headmaster is _____.
4. The main duty of the clerk is _____.
5. The main duty of the chowkidar is _____.
6. January 26 is also called _____ day.
7. When children meet elders, they should always _____ them.

C. Get the correct answer tick marked (√) from the given answers.

1. Republic day is celebrated on
   a. 26 January.
   b. 15 August.
   c. 2 October.
   d. 14 November.
2. The duty of the headmaster is
   a. supervision of children.
   b. supervision of cleanliness of the school.
   c. helping the teachers.
   d. all the above.
3. Children's Day is celebrated on
   a. 2 October.
   b. 14 November.
   c. 5 September.
   d. 14 August.
4. The responsibility of maintenance of the classroom is of the
   a. *chowkidar.*
   b. clerk.
   c. headmaster.
   d. children.

OUR NEIGHBOURHOOD — NATURAL FEATURES AND SOCIAL INSTITUTIONS

Revision of the Previous Work

In Class I, the children have been given systematic knowledge of natural environment in the neighbourhood, namely field, hill, mountain, river, pond, forest, garden, etc. and of social institutions in the neighbourhood namely temple, mosque, church, gurudwara, cinema-house, theatre, dharmshala, school, post office, market, hospital, bus stand, railway station, bank etc. Social institutions have been systematically introduced. Children's capacity to identify them and to indicate distance (near the children's house/far from their house) and direction (in front of their house/behind their house/to the right of their house/to the left of their house) has been developed. The children have realised that social institutions fulfil needs of various types. They developed the capacity to describe the services rendered by and the benefits accrued from nature and social institutions. They have also learnt to depict them through sketches.

Overview of the Unit

In Class I, separate units were provided for natural features and social institutions but in this class both have been discussed under one unit. In this class, efforts have been made to develop the concepts initiated in Class I.

Location and structure of natural features and social institutions differ from place to place. Their structure is directly dependent on climate and seasons. Climate and season affect food, clothes and houses. This unit aims at explaining the effect of seasons and climate. Attention is also to be drawn to natural and social factors which contribute to this change. Children will naturally get acquainted with scientific equipment and their operation when they visit the social institutions where they are available. They observe them and get information about them. This unit also aims at structuring their information on the subject and acquainting the children with the geography of these natural features and social institutions.

Essential Learning Outcomes

After going through the teaching-learning activities, children will be able to :

— describe natural features in their neighbourhood, their distance from

one another and the direction of their location;

— describe the structure of social institutions in their neighbourhood, their mutual distance and the direction of their location;

— describe to their classmates the structure of social institutions in their neighbourhood, their mutual distance and compare and differentiate between their geographical location and conditions;

— depict important social institutions on a chart;

— describe changes in food habits, life-style and dress according to cold, hot and rainy seasons.

Suggested Teaching-Learning Strategies

Teaching Aids

Though information about natural and social places is to be imparted through observation, utilization of the following items is very likely to make the teaching-learning process interesting and meaningful.

— Pictures and charts of different natural features, namely field, mountain, hill, desert, sea, river, pond, and also of animal, bird and tree.

— Pictures and charts along with identification symbols of temple, mosque, church, gurudwara, hospital, post office, school, market, police station, railway station, bus stand, etc.

— Charts of temple, mosque, church, gurudwara, picture hall, hospital and dispensary of different urban localities.

— Pictures and charts of different types of house, dress, foodstuff, vegetation, etc. depending upon cold, hot, desert and rainy climates.

Activities

The children should be taken to different neighbouring natural sites such as mountain, hill, rock, field, valley, river and pond and made to recognise their characteristics. The teacher talks about the sites which are available in the vicinity and helps the children to find out their location and suggests the distance of these places from one another, from their house, school and other reference points. The children may express their first-hand experiences in short sentences and draw sketches with the help of charts.

The children will identify natural sites, name them and suggest their location and distance from their house or some other reference point.

Activities

The children should be taken to neighbouring social institutions such as temple, mosque, church, gurudwara, cinema hall, market, dharamshala, some other school, college, post office, market and hopsital. The children may learn to find their location, direction and distance from a particular reference point. In Class I, they have already learnt to identify some important institutions. Now they will learn their identification symbols and recognise these places in pictures and charts. They should be encouraged to participate actively in discussion on recognition and location of social institutions.

The children will be able to describe the structure of neighbouring social institutions such as temple, mosque, post office, bus stand, dharamshala and cinema hall and their relative direction and distance from their house, school or some other reference point.

Activities

If there are more than one temple, gurudwara, mosque, etc. in the neighbourhood, the children should be encouraged to observe them and discuss their similarities and differences with regard to their shape, size, building material, location and relative direction and distance from given reference points. Small teams of children may be sent to different types of institutions and they may discuss their observations and experiences. Similarly, they should be asked to observe more than one natural place of the same type, if available in the neighbourhood and discuss their similarities and differences in the class.

The children will be able to describe similarities and differences in more than one social institution or natural place of the same type as available in their own or in their friends' neighbourhood.

Activities

The children have by now acquired some proficiency in drawing sketches of important natural features and social institutions and recognising symbols of important places. Now they may be asked to draw free-hand sketches of some important natural features and social places and describe their symbols orally and in writing in small sentences.

The children will be able to draw sketches of important social institutions and natural features and identify their symbols.

Activities

For the study of social institutions, different environments have been selected. The shape, size etc. of these institutions differ in urban and rural environments. There are differences among these places even in the same environment. These institutions may differ in many ways. The differences may be highlighted. The structure of houses located in cold, hot and rainy areas is widely different. Small children may not be able to grasp this fact, but some children, particularly those from enlightened urban backgrounds may experience these differences. Discussion on their experiences may be initiated utilising charts depicting houses in different geographical conditions; differences among houses built in hot, cold, desert and wet areas may be explained.

By seeing pictures the children will be able to identify different types of houses built in different climates.

Different types of clothes are worn in different seasons. This fact can be brought home by asking the children what sort of clothes they wear during summer and what sort of clothes they wear during winter. They deliberate

upon such questions as to why they protect themselves when they go out during rains, what steps they take at home to protect themselves from cold and heat during winter and summer respectively. It is expected that the children are able to infer how changing seasons make it necessary to change clothes accordingly.

The children will be able to describe what sort of clothes they wear during hot, cold and rainy seasons and how they protect themselves from cold and heat during winter and summer respectively at home.

Activities

The children may be asked to describe differences in food habits and foodstuffs during cold and hot seasons. These differences may be listed out on the blackboard in a tabular form and discussion on the topic may follow. It may be that the children cannot explain these differences in the class. But they can surely tell which fruits, vegetables and cereals are available in winter and which in summer, in which season they mostly get watermelon, cucumber, mangoes, etc. or cauliflower, peas and so on and in which season they like cold drinks and in which season they enjoy hot dishes. The purpose of this discussion is to impress upon the children that food items are also affected by changing seasons.

The children will be able to name food-items available during summer and those available during winter.

Activities

So far the children have been encouraged to describe the location of natural spots and social institutions with respect to one another, their house, school or some particular reference point. An effort has been made to develop their capacity to guess and suggest the relative distance and direction of these locations with reference to a particular point. The concept of standard direction on the basis of the rising sun is developed in Unit 12. At this stage, they may be introduced to the broad concept that there are four directions — East, West, North and South. A child may be asked to stand facing the rising sun and then it may be explained that in front of him is the east, towards his back is the west, towards his left hand side is the north and towards his right hand side is the south. The exercise may be repeated by calling other children one by one. The children may then be encouraged to say in which direction a particular location is.

The children may tell the direction of some spots with reference to some particular point.

Evaluation

Evaluation at this stage may be based on question-answer technique and study of pictures and charts. The children may be asked to write four or five short simple sentences. Their participation in informal discussions may also be assessed. For the development of children's creative and imaginative faculties, they may be asked to make models of some important spots

or institutions. For them it will be an additional technique of evaluation.

Teachers may easily frame their own questions. However, a few suggestive questions are given below.

A. Get the blanks filled in with suitable words.
   1. _____is provided in a hospital.
   2. _____is the incharge of a hospital.
   3. Woollen and warm clothes are worn in the_____season.
   4. Temples, mosques, churches, gurudwaras are primarily used for _____.

B. Get the following statements tick marked (√) against the correct statement or cross marked (x) against the wrong one.
   1. The sun gives only heat.
   2. The sun gives only light.
   3. The sun gives heat and light.
   4. The sun rises in the west.
   5. The sun sets in the east.
   6. Woollen clothes are worn in summer.
   7. Canals are made by nature.
   8. The river is not made.
   9. Cold food items are enjoyed in summer.

C. Get the words given in column A matched with suitable words given in column B. A word may be used more than once.

A	B
Made by nature	River
Made by man	Canal
Worship	Mountain
Entertainment	Hill
Dwelling (living place)	Temple
Direction	Mosque
	Church
	Cinema house
	Dharamshala
	Hotel
	Sun

D. Get short sentences written.
   1. Four sentences on the Post Office.
   2. Five sentences on the hospital.
   3. Four sentences on the differences between a canal and a river.

The teacher may ask the children to write 4-5 simple sentences on other common social institutions or natural features.

E. Get the following work done.
   1. Get the directions written.
      a.
      b.
      c.
      d.

2. Get the following places identified in a chart.
   a. Temple
   b. Church
   c. Mosque
   d. Gurudwara
3. Get the given social institutions identified in a chart.
   a. Police Station
   b. Hospital
   c. Bus Stand
   d. Post Office
   e. Bank
   f. Railway Station
4. Get the following identified in a chart.
   a. A house in a hilly area.
   b. A house in the plains.

PLANTS AROUND US

Revision of the Previous Work

In Class I, the children have learnt to identify plants, trees, shrubs, herbs, creepers, etc. of different types found in their neighbourhood. Their capacity to classify them on the basis of visible general characteristics such as size and shape of leaves, colours of flowers, has been developed. The objective has been to make the children interested in trees and plants so that they do not destroy them unnecessarily.

Overview of the Unit

Continuing the concepts of Class I, children's competence to classify trees and plants on the basis of visible characteristics such as height, weight and colour is to be developed. Our life depends on trees and plants. Growing more and more trees and plants is one of the ways of checking pollution in the environment in the present circumstances. Protection of environment is directly linked with trees and plants. Many aspects of Indian culture can be easily associated with them. The children should be encouraged to plant and nurture at least one tree. Discussion on the lotus, the national flower, provides a good opportunity of inculcating nationalism. The unit also aims at acquainting the children with the advantages of trees and plants.

Essential Learning Outcomes

After going through the teaching-learning activities proposed in this unit, the children will be able to :

- classify trees and plants on the basis of visible general characteristics such as size, shape, colour;
- identify trees, shrubs, climbers and herbs, etc;
- describe the advantages of some of the trees and shrubs found in the neighbourhood.

Suggested Teaching-Learning Strategies

Teaching Aids

To teach this unit, trees and plants found in the neighbourhood, and their parts such as leaves, flowers and fruits may be shown. Charts and pictures depicting different types of trees, shrubs, herbs, and medicinal plants along with their names may be fruitfully and effectively used.

Activities

The children should be taken around to observe trees and plants in the neighbourhood. They observe that some plants like mango and neem have tall, bulky, thick and strong stems while some others such as the rose have stems not so tall and thick, some plants have very small and soft stems while some have long but soft stems which cannot rise without the support of other trees or pillars, etc. It should be explained that such plants are called trees, shrubs, herbs and climbers respectively. The children observe the characteristics of one type of plant, say a

climber and identify other climbers in the vicinity. They may also learn the names of some common plants. Their attention may be drawn to similarities and differences among plants, particularly plants of the same type.

To develop children's interest in trees and plants, the teacher helps them to classify the trees and plants in different categories on the basis of their relative size, shape, colour, smell, etc. The children may also classify them on the basis of flowers, fruits, leaves, etc.

The advantages accruing from these trees and plants may be discussed.

It is not recommended to complete all these activities pertaining to observation, identification, classification, etc. simultaneously. These activities should go on slowly over a long span of time.

Frequent repetition of discussion and activities are aimed at instilling among the children the desire to grow and preserve trees. Our food, clothing and housing depend on trees and plants. These plants are the source of life giving oxygen in this age of industrialisation.

The children will be able to classify plants in the categories of trees, shrubs, herbs, etc. and further classify them on the basis of size, shape, colour, smell, flowers, leaves, etc. in the same category and in different categories.

Activities

The children have done such activities in Class I and are doing similar activities in this class too. It is recommended that at one time only one type of activity should be carried out, so as to make the concept more clear. The children may be asked to observe the growth and life span of different types of plants all the year round. They observe that some plants last only one season whereas some plants live for years. Trees such as neem, peepal and mango live for many years. Shrubs such as the rose also have a long span of life. But cereal plants such as wheat and gram live only for one-season cycle. In this short span itself they grow, bear fruit and die. Some trees take quite long to grow, bear fruit after many years, but then continue to bear fruits for a long period. The observations of the children may be arranged in tabular form as given below. This facilitates the development of concept.

The children will be able to recognise and name plants having shorter maturity period and life span and those having longer growth and life span.

Activities

The teacher asks the children to collect leaves, flowers and fruits of different

Sl. No.	*Name of trees and plants*	*Period of maturity and life span*			
		3 months	*6 months*	*one year*	*more than one year*
1.					
2.					
3.					
4.					
5.					

types and helps them in collecting them. He guides them in preserving some of these leaves, flowers and fruits.

He utilises suitable occasions to point out that some plants grow from seeds, others like rose grow without seeds. He discusses plants which can easily be grown in pots.

> The children will be able to collect and preserve leaves, flowers, and fruits of some plants.

Activities

The children will be able to recall their personal experiences and talk about the advantages of plants. The teacher may bring some plants in the classroom and introduce them to the children. He may also tell them how different parts of plants are utilised. He helps them to identify and name plants used for food such as cereals, pulses, vegetables, those used for medicinal purposes and those used for decoration. He acquaints them with trees, the wood of which is used for making furniture, toys, building, etc. If the information is recorded in tabular form, it may make the discussion interesting. Use of charts in this process may make learning natural and interesting.

> The children will be able to tell the advantages of some plants in the neighbourhood.

Evaluation

For the assessment of children's attainments, activities are most appropriate. The children may be asked to identify trees, shrubs, herbs, etc., from amongst the collected plants and tell their names and talk about their advantages. Question-answers, discussions, study of pictures and charts may also be employed for evaluation.

Their process of collection and preservation of leaves, flowers, fruits, etc. according to their capacity, may also be assessed. The children may be asked to draw sketches and write short sentences. Questions given on page 26 of *Environmental Studies' Class I : Teacher's Guide* may be framed. A few suggestive questions are given below.

A. Get the most appropriate answer tick marked (√).

1. The small plant with soft stem is called
   a. herb.
   b. climber.
   c. shrub.
   d. tree.
2. The plant with tender stem, which is unable to stand without support, is called
   a. climber.
   b. herb.
   c. shrub.
   d. tree.
3. The trunk of a tree is
   a. hard and thick.
   b. soft and slender.
   c. hard but unable to stand on its own.
   d. soft but can stand on its own.
4. Rose plant falls in the category of
   a. trees.
   b. shrubs.
   c. climbers.
5. Cotton cloth is made from
   a. groundnut plant.
   b. cotton plant.

c. rice plant.
d. mulberry plant.

6. Good furniture is made from
   a. mango tree.
   b. sagaun tree.
   c. babul tree.

B. Get the following statements tick marked (√) against a correct one or cross marked (x) against a wrong one.

1. Different types of plants are found in the neighbourhood.
2. Herbs do not belong to any category of plants.
3. All Plants are similar.
4. Plants can be grown even without seeds.
5. Some plants have a short life span and some have a long life span.
6. Plants are used only for decoration.
7. Neem tree lives for four or five years.
8. Protection of plants is the responsibility of nature.
9. Plants having thick, woody trunks are called trees.
10. Plants looking like bushes and having woody stems are called shrubs.
11. Trees are bigger than shrubs.
12. Some plants bear fruits for many years.
13. All plants grow from seeds.
14. All plants bear flowers.
15. Leaves of all plants are alike.
16. Herbs are bigger than shrubs.

C. Get the blanks filled in with suitable words.

1. Plants in the neighbourhood have similarities as well as _____.
2. Around us there are plants of _____ types.
3. All plants are _____ similar.
4. All plants can _____ stand without support.
5. Plants having thick woody trunks are called _____.
6. Plants with soft stems are called _____.
7. Plants with tender stems, which cannot stand without support are called _____.
8. Rose _____ is an example of a _____.
9. An example of a tree is _____.
10. Plants are _____ for human beings.
11. Life span of wheat or rice plant is _____ than one year.
12. _____ tree bears fruits for many years.
13. _____ plant can be grown without seed.
14. Grass belongs to the category of.....
15. For making furniture wood of _____ tree is mostly used.

D. Get the following table completed.

Name of the Plant	*Tree/shrub/herb*	*Life span*	*Advantages*
Neem			
Mango			
Rose			
Grass			

2. Get the following classified

Name	*Tree*	*Shrub*	*Herb*
Cauliflower			
Orange			
Neem			
Brinjal			
Grapes			
Palak			
Methi			
Mustard			
Rose			
Mango			
Peepal			
Grass			

3. Get the children to collect pictures of some plants, trees such as mango, orange, apple, cauliflower, etc. Ask the children to write which plants bear fruits only once and which continue to bear fruits for many years. This can be done as a field activity also.
   (i) Mango tree
   (ii) Orange tree
   (iii) Apple tree
   (iv) Wheat/rice plants
   (v) Cauliflower

A few suggested activities for children

1. Children may be asked to collect, preserve and paste dry leaves, flowers, etc. in their album. The teacher will help them in this activity.
2. The children should be asked to collect pictures of cereal plants, vegetable plants and fruit plants and paste them in their album.
3. The children should be asked to observe plants in their neighbourhood and draw them.

ANIMALS AROUND US

Revision of the Previous Work

In Class I, the children learnt to identify different types of animals and their body parts. They also learnt the names of some common animals. They learnt to classify animals on the basis of specific observable characteristics such as four-footed (quadrupeds), walking, crawling, swimming and flying. Children like to see animals of different types. In Class I, their interest in this direction was developed.

Overview of the Unit

Continuing the concepts developed in Class I, the children's capability to classify animals on the basis of the constitution of their body, features of their body parts, food habits such as plant-eating animals and flesh-eating animals (herbivorous and carnivorous), their homes or shelters (habitats), etc. is to be developed. Children are to be encouraged to look after domestic animals and pets. Through knowledge of national animals, their sense of nationalism is to be developed. The unit also aims at instilling the feeling that animals should not be harmed unnecessarily or wantonly.

Essential Learning Outcomes

After going through the teaching-learning activities proposed in this unit, the children will be able to :

- classify animals in the surroundings on the basis of the constitution of body, size, number of legs, shape of body parts, types of food, style of eating, habitat, gait, etc.;
- describe the advantages accruing from some of the domestic animals in the neighbourhood, domestic animals and pets.

Suggested Teaching-Learning Strategies

Teaching Aids

Animals in the neigbourhood may be shown. The opportunity of visiting a zoo may be availed of. Pictures and charts of wild and domestic animals of various types depicting their usefulness may also be effectively used.

Activities

The teacher initiates discussion on topics learnt in Class I. He asks the children to bring pictures of animals which they may have collected. He may show more such pictures. He takes them around in the neighbourhood, shows them the animals there and discusses similarities and dissimilarities. He gets the animals classified on the basis of their observable characteristics such as number of legs, mode of movement (walking, flying, crawling, etc.), kind of food they eat and gets the information filled in an appropriate table. The

teacher may himself, according to his circumstances, decide which characteristics he would like to be used for classification.

Using appropriate pictures, the teacher asks the children to discuss similarities and dissimilarities of animals belonging to a particular category, e.g. he may ask them to describe differences and similarities among four-footed animals such as cow, buffalo, ox, goat, sheep, among animals living in water, among flying animals and so on.

The children will be able to classify animals on the basis of observable characteristics such as constitution of the body, size, number of feet, features of body parts, type of food and eating habits, habitat, gait, etc.

Activities

The children recognise different types of wild animals, domestic animals and pets. They are aware of the various advantages that are obtained from the cow, buffalo, sheep goat, ox, dog, donkey, horse, hen, etc. The teacher with the children's cooperation, enlists these advantages on the blackboard in a tabular form and thus establishes the advantages in their mind, e.g. cow, buffalo, sheep, and goat provide us milk, horse is used for riding and for pulling carts, ekka, tonga; sheep gives us wool, dog protects our houses, ox is employed in ploughing and also in pulling carts, camel is called the ship of the desert; donkey carries load, mule carries load and also passengers in hilly areas, hens give us eggs. The hide of dead animals is used for making shoes, slippers, suitcase, coat and many other things.

The children will be able to describe various advantages accruing from animals in the neighbourhood and from domestic animals.

Evaluation

Along with question-answers, animals of different types may be identified in pictures and charts. Children's behaviour with animals in the neighbourhood and domestic animals may be assessed. Questions similar to those given in pages 30-31 of *Environmental Studies - Teacher's Guide, Class I* and of the types given below may be asked.

A. Get the blanks filled in with suitable words
   1. Animals need_____.
   2. Dogs _____ in houses.
   3. Hen gives_____.
   4. Cow gives_____.
   5. The buffalo is mostly _____in colour.
   6. When the cat comes, rats _____ away.
   7. The earthworm is called nature's ploughman. It _____ mostly during rains.

B. Get the following statements suitably tick marked (√) against a correct statement or cross marked (x) against a wrong one.
   1. Most birds have a beak, feathers and two legs.
   2. Most insects have six legs and fragile, paper-like feathers.

3. Dog, cat, goat, camels are all four-footed animals.
4. Cats and dogs are flesh-eating (carnivorous) animals.
5. Flies, mosquitoes, fleas, lice, etc. carry germs of different diseases.
6. The bee provides honey.
7. The frog lives both on land and water (amphibian).
8. The lizard eats insects.
9. The hen lays eggs all the year.
10. Rats cause great harm.
11. Domestic animals cause harm.
12. Snakes live in caves.

C. Get the following table completed.

1. Get the correct names written.

Advantages	*Names of animals*
Those giving milk	
Those giving eggs	
Those used in transport	
Those used in farming	

2. Get the correct column tick marked (√)

Names of animals	*Wild animal*	*Domestic animal*	*Flying animal*	*Amphibian*
Cow, buffalo				
Sheep, goat				
Donkey, horse				
Lizard				
Pigeon, parrot				
Ox				
Frog				
Lion, tiger				

D. Get the correct answer among the given alternatives tick marked (√).

1. Which one is not a domestic animal?
   a. Cow
   b. Buffalo
   c. Goat
   d. Fox
2. Which of the following is the national animal?
   a. Tiger
   b. Lion
   c. Deer
   d. Stag
3. Most insects have
   a. two legs.
   b. four legs.
   c. five legs.
   d. eight legs.
4. Which is herbivorous ?
   a. Elephant

b. Lion
c. Tiger
d. Dog

5. Which of the following is the national bird ?
   a. Peacock
   b. Pigeon
   c. Parrot

6. Which of the following live in trees?
   a. Monkeys
   b. Buffalos
   c. Rats
   d. Cats

7. Which is the biggest animal on land?
   a. Elephant
   b. Buffalo
   c. Camel
   d. Ox

8. Which one of the following does not chew cud ?
   a. Buffalo
   b. Cow
   c. Sheep
   d. Man

9. Which one of the following does not crawl?
   a. Lizard
   b. Earthworm
   c. Snake
   d. Frog

10. Which of the following can fly?
    a. Bat
    b. Lizard
    c. Snake
    d. Scorpion

11. Which of the following runs the fastest?
    a. Horse
    b. Cow
    c. Donkey
    d. Buffalo

OCCUPATIONS AND LIFE OF THE PEOPLE IN THE NEIGHBOURHOOD

Revision of the Previous Work

For earning a livelihood, every person has to do some work. Such work is called occupation. In Class I, the children learnt about different coccupations such as farming, carpentry, blacksmith's work, shopkeeping, service and weaving. They learnt to identify people engaged in these occupations and also the tools they employ. They also learnt to draw sketches of some tools used in common occupations. They developed the capability to conduct a survey and find out which occupation is followed by most people and which by few people.

Overview of the Unit

Continuing concepts initiated in Class I, the knowledge of different types of occupations such as agriculture, gardening, dairy farming, hen rearing (poultry farming), etc. and identification and classification of their products, is to be imparted. They will know about products of different occupations. People engaged in one occupation come closer. Different occupations are interdependent. Occupations thus generate a feeling of social interdependence and oneness. Festivals too, like occupations, provide opportunities of coming closer, establishing social contacts and developing unity. The children are to be encouraged to participate in and contribute their mite to social functions and festivals.

Essential Learning Outcomes

After going through the teaching-learning activities proposed in this unit, the children will be able to :

- identify and name the occupations of the people in the neighbourhood;
- identify occupations in the neighbourhood, such as agriculture, horticulture, dairy farming, poultry farming and identify and differentiate among some of their common products;
- identify and name some important common products;
- participate and cooperate in different functions and festivals celebrated in the society.

Suggested Teaching-Learning Strategies

Teaching Aids

Pictures, sketches and charts of different occupations depicting people prac-

tising them and their products may be effectively used.

Activities

In the previous class, the children might have prepared a table of the occupations of the people around and conducted a survey of the number of men engaged in each occupation. In this class, they again enlist information regarding the occupations around and the number of people in each in a tabular form. The area to be surveyed depends upon the capability of the children, type of area and circumstances. A survey discussion on different types of occupations may be arranged. Their parents may be practising different occupations. Their first-hand knowledge of their parent's respective occupations may be used to introduce them to different occupations. They may be shown, if available, pictures, charts, etc. pertaining to different occupations. Industrial products may also be shown. If possible, the process of making some of the products may also be demonstrated. Desired objectives may be attained if the children are given first-hand information about all the occupations available in the neighbourhood.

The children will be able to identify and name occupations of the people in the neighbourhood.

Activities

The teacher collects important industrial products of the area with the help of the children. If possible, he may get one or two such products of each industry collected by the children according to their capacity. This develops children's involvement in the teaching-learning process. Products of the milk industry may be shown. Children recognise most of these products well. They also know many products of the agricultural industry. As far as possible, the children should be given direct experience of occupations and their products. For knowing about occupations, such as the blacksmith's and the carpenter's, they should be taken to some blacksmith's and carpenter's workshops in the locality and shown their tools and products.

The children may be made to identify common milk products such as ghee, butter, cheese, curd, etc. and sweets made from milk. Ghee is extracted from curd by churning. It is also obtained by extracting cream from milk. It will be appropriate if such activities are practically demonstrated. Teaching becomes interesting if the children are encouraged to talk to their parents and narrate their experiences.

The children will be able to identify important occupations of their locality, and identify and classify their products.

Activities

Many products are seen around and in the local market. Their production is associated with some occupation. As it is not always possible to give direct experience of all occupations, information about important products may be given. The children may be helped to identify and name them. It is desirable to take the children to the market or to the weekly market according to conve-

nience and give them an opportunity to observe products and learn their names from their peers, shopkeepers and teachers.

> The children will identify and name some important common products and associate them with related occupations.

Activities

People practising similar occupations form their own group. A feeling of oneness arises and slowly grows among them. People come in contact with one another and develop oneness and unity. Opportunities of coming in contact with each other are available during celebrations of functions and festivals. A large number of festivals are celebrated in our country. It is no exaggeration to say that India is a land of festivals. To whichever religion or region a festival may belong, it belongs to all of us and we all celebrate it together whether it is Holi, Id, Guruparb, Christmas, Pongal, Lohri or Naudurga. As and when a festival comes, discussion may be held as to how the children celebrate it at home. The children are already learning to shoulder responsibility during school programmes, activities and functions; they should be encouraged to shoulder responsibility during social functions and festivals.

> The children will be able to name functions and festivals celebrated in their society and describe the role they may have played and the responsibility they may have shouldered according to their capacity.

Evaluation

For evaluating children's knowledge, question-answers, pictures and sketches may be used. Through oral discussion, their information regarding various occupations and their products may be assessed. Short sentences may also be got written. It is natural that the children have first-hand knowledge of a few occupations. In such cases, they may be asked to describe the occupations, and identify their products. They may be asked to collect samples of as many products as they can and then classify them occupation-wise. All these practical activities may be observed to assess their knowledge. Objective type questions may also be formed. A few suggestions for objective type questions are given below.

A. Get the blanks filled in with appropriate words.

1. The work a person does, for earning his livelihood, is called _____ .
2. The occupation of most of the villagers is _____.
3. The man engaged in carpentry is generally called a _____.
4. The man working in a blacksmithy is generally called a _____.
5. The man engaged in agriculture is generally called a _____.
6. The man engaged in teaching is generally called a _____.

B. Get the following statements suitably tick marked (✓) against a correct statement and cross marked (x) against a wrong one.

1. For earning a livelihood, no occupation is required.

2. Some occupation is necessary for earning a livelihood.
3. All have a right to celebrate a festival to whichever religion it may pertain.
4. Occupations are only of four types.
5. Service is not an occupation.
6. Celebration of social functions causes harm.

C. Get the words given in Column A and Column B suitably matched.

A	B
Sweets	Agriculture
Cereals	Poultry farming
Pulses	Blacksmith's work
Cloth	Goldsmithy
Cotton	Dairy farming
Wooden doors	Horticulture
Medicine	Weaving
Butter	Carpentry
Wooden writing slates	Sweet seller
Ghee	
Wooden toys	
Wodden furniture	
Gold and silver ornaments	
Flowers of different types	
Fruit processing	
Decoration of parks	
Sale of grocery	
Scissors/knife manufacturing	

D. Get the correct answer out of the given alternatives tick marked (√)

1. Which items are directly received from agriculture?
   a. Plastic combs
   b. Medicine tablets
   c. Writing books and copies
   d. Cereals
2. Which festival is celebrated in the beginning of summer?
   a. Holi
   b. Christmas
   c. Independence Day
   d. Republic Day
3. A chisel is needed by a
   a. carpenter.
   b. blacksmith.
   c. goldsmith.
   d. shopkeeper.

MEANS OF TRANSPORT

Revision of the Previous Work

In Class 1, the children were taught about the means of transport such as bicycle, rikshaw, auto-rikshaw, scooter, motor-cycle, car, bus, truck, bullock-cart, tonga, horse-cart, train, aeroplane, etc. that are available. The children can identify slow moving and fast moving means of transport in the neighbourhood. They have experienced the pleasure of travelling by some of the means.Discussion has been initiated on the basis of such personal experiences.

Overview of the Unit

Continuing the concepts initiated in Class-I, efforts will be made to acquaint them with man-driven, animal-driven and machine (power)-driven means of transport. Acquaintance with the traffic rules is also aimed at.

Essential Learning Outcomes

After going through the teaching-learning activities proposed in the unit, the children will be able to:

- identify and name various means of transport driven by man, animal and machine (power);
- observe traffic rules while crossing the road or walking on it and describe the precautions which they take.

Suggested Teaching-Learning Strategies

Teaching Aids

For teaching this unit, though direct environmental education is essential, pictures and charts depicting various means of transport, traffic rules, traffic symbols and people crossing the road, etc. may be used to make teaching interesting, clear and effective.

Activities

The teacher revises the activities given on pages 35-36 of *Teacher's Guide — Environmental Studies for Class I*. He discusses which means of transport are driven by man and which by animals. He talks about various animals such as horse, ox, camel and elephant which are used in transport. Then he talks about machine-driven means of transport such as motor-car, truck, scooter, train, aeroplane and ship. Though the children are to be shown these means of transport, pictures and charts may be used to show those means of transport which are not available in the neighbouhood. The different means of transport may be classified as those moving on land, in water and flying in air and discussed.

The children will be able to identify and name the means of transport driven by man, by animals and by machines.

Activities

In cities, traffic has increased so much that not only children, even older people find it difficult to walk on and cross the road. The children should be told that observance of traffic rules is most essential for safety. They should always walk on the left-hand side footpath meant for pedestrians. They should be taken on the road and told the rules of crossing it. The road should be crossed only at the zebra crossing; it should be crossed, as far as possible, in the company of some older person. When it is to be crossed alone, children should be extra careful in observing traffic rules and should ensure that there is no fast approaching vehicle nearby and that there is no risk of accident.

The teacher may use charts to explain traffic rules and the implications of green, amber and red traffic lights. The children should be taken to some important road-crossing and shown how traffic light or traffic police help to regulate traffic and how vehicles move on the road in accordance with these regulations. They should note which vehicles move fast and which move slowly.

The children will walk on the left-hand side footpath and will carefully cross the road, following traffic rules.

Evaluation

To evaluate children's achievements, question-answers, picture reading and chart study techniques may be employed. Evaluation can also be made by observing the way they actually move on the road and cross it. Questions may be framed on the pattern of those given in *Teacher's Guide , Environmental Studies for Class I.* A few questions are suggested below.

A. Several answers are given for each question. Get the correct answer tick marked (√).

1. The vehicle directly driven by man is
   a. bicycle.
   b. bullock-cart.
   c. ekka.
   d. car.
2. Which one is a machine-driven vehicle ?
   a. Car
   b. Camel-cart
   c. Bullock-cart
   d. Ekka
3. Which one is a fast moving vehicle?
   a. Bullock-cart
   b. Horse-cart
   c. Motorcycle
   d. Cycle-rikshaw
4. Which one does not move on road?
   a. Boat
   b. Bicycle
   c. Rikshaw
   d. Bullock-cart
5. Which one is suitable for long journeys ?
   a. Horse-cart
   b. Bullock-cart
   c. Camel-cart
   d. Motorcar
6. Which one is used to cross wide rivers when there is no bridge ?

a. Steam-boat
b. Cart
c. Horse-cart
d. Train

7. Near road-crossings where there are light signals, the road should be crossed
   a. when the light is red.
   b. when the light is yellow.
   c. when the light is green.
   d. whenever we desire.

B. Get the following statements suitably tick marked (√) against a correct statement and cross marked (x) against a wrong one.

1. Green light on the cross-roads indicates that you may go.
2. Amber light on the cross-roads indicates that you should be ready to go.
3. Red light on the cross-roads indicates that you should stop.
4. Red light on the road indicates danger.
5. Vehicles going from one place to another are called means of transport.
6. All means of transport in the neighbourhood are of the same type.
7. The vehicles which are driven by man can be driven by machine also.
8. For reaching a place quickly, we should travel by a vehicle such as a cart.
9. The bullock-cart is quite suitable for urban localities.
10. The camel is called 'the ship of the desert'.
11. We can avoid accidents only by observing traffic rules.
12. The elephant is used for carrying men as well as transporting goods.
13. Animals are also used for transportation.
14. We should not cross the road when there is red light at the crossing.
15. Traffic rules should be followed only in big cities.

C. Get the blanks filled in with suitable words.

1. The camel is called the _____ of the desert'.
2. The boat moves in _____.
3. We should move on the _____ side of the road.
4. In big cities we should move only on _____.
5. The place from where an aeroplane takes off or lands is called an _____.
6. _____ is the appropriate means of transport on kutcha roads.

D. 1. Get the means of transport given below classified as
   a. driven by animals, driven by man, driven by machine;
   b. relatively fast moving, slow moving; and
   c. moving on land, moving in water, flying in air. Bicycle, cycle-rikshaw, auto-rikshaw, bullock-cart, horse-cart, camel-cart, buffalo-cart, motorcycle, scooter, bus, train, aeroplane, boat, steamer, ship, helicopter.

2. Get the cross-road situation created in the school campus to demonstrate the traffic rules. (Red, amber and green placards may be used to indicate these light signals).

3. Get the names of various means of transport written .

a.	b.	c.
d.	e.	f.
g.	h.	i.

WATER

Revision of the Previous Work

Water is essential for the existence of man, animals, birds, plants, etc. In Class I, the capability of children to describe the necessity of water for various activities of daily life such as drinking, cooking, bathing, washing, for animals, birds and vegetation was developed.

They learnt to identify the sources of water, namely rivers, ponds, streams, rain, and to distinguish between clean water and dirty (polluted) water. Efforts have been made to enable them to describe the factors which pollute water. They have been told the need of protecting drinking water from dust, dirt, etc., storing it properly and taking it out of the vessel correctly.

Overview of the Unit

Continuing the concepts initiated in Class I, efforts will be made to make the children realise that washing clothes, cleaning utensils, urinating, defecating, bathing and washing cattle near the sources of water pollute it. Water is a good solvent. It dissolves many impurities which pollute water. Polluted water is injurious to health. The children will be made aware of the factors of water pollution and the methods of protecting water from these polluting factors. They will be acquainted with the methods of storing and handling drinking water. They will be made to realise that every drop of water is precious and that it is the duty of all of us to consume water carefully and economically and to protect and preserve drinking water.

Essential Learning Outcomes

After going through the teaching-learning activities proposed in this unit, the children will be able to :

- point out that activities such as bathing, washing clothes, urinating defecating, bathing animals, etc. near water sources pollute water;
- identify some polluting substances such as dirt, dust, pebbles, stones, garbage and enumerate factors of pollution;
- describe methods of protecting sources of water from polluting factors;
- describe a few methods of purifying polluted water such as by filtering, boiling or mixing some suitable chemical substance;
- enumerate methods of preserving and storing drinking water such as storing water in a clean vessel, not storing water continuously for many days;
- enumerate methods of handling drinking water properly.

Suggested Teaching-Learning Strategies

Teaching Aids

The following charts and material may be

effectively used.

1. Charts depicting factors causing pollution near rural sources of water such as pond, well, lake and also depicting methods of protecting them such as by raising walls around the well, by bathing, washing, etc. away from them.
2. Potassium permanganate and chlorine tablets.
3. Equipment such as pitchers, vessels, stoves are easily available in the neighbourhood for boiling, filtering, etc. to make water suitable for drinking.
4. Charts depicting activities for protecting and handling drinking water.

Activities

The teacher talks to the children about various types of uses of water and draws their attention to their previous experiences regarding water polluting factors. The children may be taken to the sources of water available in the locality, such as river, pond, stream, and be shown how water gets polluted. Such situations are easily available in rural areas and urban slum areas. The children may be asked to observe them and then discuss with the help of a chart how water gets polluted and how sources of water can be protected from pollution. Charts depicting dirty water falling into a well when bathing, washing, etc. near these sources, may be shown. The children should be encouraged to describe and name factors of water pollution and enumerate methods of protecting water on the basis of their observation.

The children will enumerate the activities performed near water sources that cause water pollution, and also describe methods of protecting water from pollution.

Activities

Drawing on their previous experiences, the teacher tells the children how water gets dirty. He brings two separate containers containing clean water and muddy pond or pit water and asks the children to observe them. He then asks them to mix dirt, dust, garbage, dry leaves and other pollutants easily available in the locality in the clean water. The children observe floating, suspended and dissolved substances and name them. The teacher helps them to learn names that are new to them.

The children will be able to name a few substances which get dissolved in water and pollute it.

Activities

The teacher brings dirty water from various sources and leaves it in glass containers for sometime. The children may be asked to observe suspended matter which slowly settles down, and floating impurities, if any. He shows them clean water after filteration and decantation. Thus they will know these processess. They should be told that even now this water need not be fit for drinking; it should be boiled to become fit for drinking as boiling destroys bacteria and germs.

The following activity may be demonstrated with the help of the children.

Take three pitchers or vessels. Fill the uppermost pitcher with dirty water. This water drips down in the second pitcher filled with sandy clay. Water passes through sandy clay and drips down to the third pitcher containing powdered coal. Filtered through this pitcher, clean water gets collected in the lowermast container. This method may be employed for making water fit for drinking.

To purify well water , tank water, etc., potassium permanganate or chlorine tablets are mixed. The teacher takes some water in two pitchers, dissolves potassium permanganate and chlorine tablets in them respectively, tastes it first and then asks the children to observe and taste. If available, the process of cleaning water in water filters may also be shown.

The children will be able to describe different methods of purifying dirty water, e.g., by filtering, decanting, boiling and mixing chemical substances.

Activities

The teacher initiates discussion on drinking water. During the discussion, he asks questions, e.g., in which pots — earthen or metallic — filtered drinking water is stored in their houses, after what period the pots are cleaned, how they are kept clean and so on. Information may be listed in tabular form as to how may families clean their pots daily, how many do it after one day, two days and so on, how many keep the pots covered. The discussion should help the children realise that water containers should be kept properly covered and should be cleaned regularly. It may be that some children get direct running tap-water and may not experience the need for storing clean water. But they should also learn that fingers should not be dipped in water and that they should fill the vessel or take out water with a long handled container. These methods may be demonstrated in the class. Containers should be kept clean. Containers having taps should also be shown.

The children will explain the need for keeping drinking water in clean vessels. They will also describe methods of taking out water by tilting the pot or by using a long handled container, and methods of keeping water clean and pure.

Evaluation

For evaluating the learning outcomes, question-answers, picture-study, etc. may be employed. The children may be asked to perform activities such as decanting, filtering, boiling, taking out water, cleaning impure water. These activities may be observed and assessed. Short sentences may be got written. By conducting practical experiment they may say which substances get dissolved in water and which do not.

Children's habits may be formally and informally evaluated. Their behaviour during school hours may also be assessed. Depending upon situations in the localities, discussion on pollution near the sources of water may be arranged. The children may be asked to suggest methods of preventing pollution. Informal assessment is preferable to formal evaluation.

However, short-answer type questions

pertaining to the subject area may be formed. Objective questions may also be used. A few questions are suggested below.

A. Get the correct answer tick marked (√).

1. Which of these is a natural source of water ?
   a. River.
   b. Tapped utensil.
   c. Tank.
   d. Pitcher.
2. The best method of purifying water is
   a. boiling.
   b. dissolving potassium permanganate.
   c. dissolving chlorine tablets.
   d. filtering.
3. The container for drinking water should be made of
   a. copper.
   b. clay.
   c. brass.
   d. glass.
4. For storing drinking water the container should be
   a. rusty.
   b. mossy.
   c. of any type.
   d. clean.
5. Where should we take drinking water from ?
   a. River.
   b. Pond.
   c. Well.
   d. Stream.
6. Which is not soluble in water
   a. Sugar.
   b Salt.
   c. Milk.
   d. Oil.
7. Water should be taken out of a pitcher by
   a. dipping hand.
   b. dipping dirty vessel.
   c. pouring into a clean vessel.
   d. dipping any vessel.
8. Water can be purified by
   a. boiling.
   b. filtering.
   c. decanting.
   d. dissolving chlorine.
   e. all these methods.

B. Get the blanks filled in with appropriate words.

1. If possible, water should be taken after _____ (boiling, filtering, decanting).
2. Drinking water should be first of all _____ (filtered, boiled, decanted).
3. Water gets impure by _____ and _____.
4. Drinking water should be protected by _____ (covering it, leaving it exposed).

C. Get the following statements suitably tick marked (√) against the correct statement and cross marked (x) against the incorrect one.

1. Dissolving potassium permanganate in water does not make it fit for drinking.
2. Filteration of water destroys its nutrients.
3. Decantation takes away energy from water.
4. Pouring soap water into a well, purifies well water.

Suggested Teaching-Learning Strategies

Teaching Aids

The teaching-learning of this unit is likely to be more interesting if the children are taken around to observe natural and man-made objects. The following objects and charts etc. may be effectively used.

— Natural objects such as soils, rock samples, pebbles, stone, small plants, etc. of different types and man-made objects such as paper, pencil, utensils, cloth, toys, etc.

— Models, photos, pictures, charts, etc. of natural features such as river, mountain, valley and man-made objects such as street, bridge, dam, rail-lines, multi-storeyed buildings, smoke-emitting factories, mills, garbage floating in rivers, and a few objects made by man and nature, available in the neighbourhood.

Activities

Drawing upon the previous experiences of the children, the teacher discusses with them natural and man-made objects. The children may be asked to bring as per their capability a few natural and man-made objects from their locality. The teacher discusses with them the characteristics of these objects which are used for their classification. The children may be asked to speak and write in short sentences about size, shape, features, colour, construction, etc. of any two objects. This may help them to develop competence to identify these objects and describe them verbally and in writing in short sentences.

The children will be able to differentiate between natural and man- made objects.

Activities

The children should be taken out in the neighbourhood and be acquainted with natural and man-made objects. Their attention should be drawn to the smoke emitting from vehicles and factories, the garbage floating in rivers and drains and the waste materials such as paper plates, leaves, dishes, envelopes and earthen pots, etc. lying in parks and on roadsides. How they cause pollution which in turn causes harm to life, nature, buildings, etc. may be discussed. The children should also be encouraged to talk on the subject. This first-hand acquaintance with the environment forms the basis of further education.

In some localities (as in big cities), it may not be possible to point out geographical (physical) features. In such cases the children may be shown models, photos, pictures, charts, etc. of natural objects. Industrial urbanisation enables them to discuss natural and man-made objects and to name factors causing pollution. Detailed discussion may be held on some particular components of a chart and the children be asked to describe a particular component verbally and by writing short sentences.

The children will be able to name some common natural and man-made objects and write a few short sentences about them.

Activities

The activities conducted so far have developed competence in the children to classify objects as nature-made and man-made. Continuing this process, the teacher encourages the children to classify the objects on the basis of colour, form, hardness, softness, shape, smell, sound, etc. They themselves may be asked to determine the basis of classification. They may further classify them as living and non-living, and through discussion and activities develop their characteristics one by one. This information may be utilised in the study of other objects of the environment.

The children will be able to name some common living and non-living objects and describe them in simple, short written sentences.

Activities

Talking about man-made objects, the teacher draws the children's attention towards all aspects of India's development. On the one hand, houses are necessary, trains are necessary, mills and factories are necessary and for all these land is also necessary. On the other hand, land is absolutely essential for growing food for us, land is necessary for birds, animals and plants too. Plants protect the environment from pollution. But land meant for agriculture, plants, forests is being used for urbanisation. Urbanisation is resulting in growing pollution. Thus, on the one hand, factors causing pollution are increasing, on the other hand, factors reducing pollution are decreasing. This fact may be brought out by discussion. It may also be discussed how land pollution, water pollution, air pollution and noise pollution affect the environment. Harms caused by pollution may be brought home slowly by discussing polluting factors one by one. Steps to prevent pollution may also be discussed. A chart depicting forest and agriculture land used for urbanisation may be shown.To explain air and water pollution, a chart showing smoke coming out from big factories, vehicles emitting smoke, garbage thrown in water may be used.

The children will be able to point out the objects which pollute the environment and describe that pollution causes diseases and makes healthy living impossible.

Activities

The children have so far been told what the polluting factors are and what harm pollution of environment causes. Now, to prevent pollution, the polluting factors should be eliminated. But can they be eliminated? If not, to what extent can they be controlled? Urbanisation and industrialisation will inevitably cause pollution. Hence, what can be done under these circumstances? All these points may be discussed.

It is likely that the children may not understand this conflicting phenomenon but they will surely appreciate the need for reducing polluting factors.

In this situation stress should be laid on what the government and the society should do, and in particular what the role of children is in protecting the environment from pollution. They

should not throw garbage anywhere and everywhere, they should not dirty parks and other public places, they should grow plants and vegetation. Their role in protecting the environment should be highlighted.

The children will be able to talk about protection of the environment. They will also be able to describe how the environment gets polluted and what they can do to protect it.

Evaluation

Teacher's observation based evaluation is expected for this unit. When the children are out in the open, or talking about charts and pictures or discussing the characteristics of living and non-living objects, colour, shape, size, etc. of different objects, the teacher will carefully watch them, find out their knowledge and aptitude by observation and by asking questions of different types and maintain anecdotal records.

If formal evaluation is found desirable, the teacher may ask them to write the names of five living and five non-living objects and then describe them in simple sentences. Actually, this will be an evaluation of language proficiency, yet this may be and should be initiated to form the basis of formal evaluation in Class III.

For evaluation, questions both formal and informal, may be framed. Variety may be introduced in writing questions.

Picture-study based on pictures of growing polluting factors on the one hand and methods to prevent or curb pollution on the other, may be used for evaluation. Simple activities may be arranged. Simple questions and discussions on the knowledge of prevention of soil erosion by trees, protection of the environment, cleanliness, etc. may also be used for evaluation.

A few questions are suggested below.

A. Get the names of five objects written in the given column.

1. *Man-made objects*

In the sphere of food	
In the sphere of clothes	
In the sphere of building materials	
In the sphere of health	

2. *Natural objects*

In the sphere of food	
In the sphere of clothing	
In the sphere of building materials	
In the sphere of health	

B. Get the characteristics of objects written.

1. Characteristics of living objects

Name of objects	*Characteristics*

2. Characteristics of non-living objects

Name of objects	*Characteristics*

C. Get the following table filled with information regarding the harms caused by

Environmental pollution	*Water pollution*	*Air pollution*	*Sound pollution*

D. Get the following completed.

1. Availability of land is getting reduced as it is used for making
   a. house
   b.
   c.
   d.

2. Pollution is caused by
   a.
   b.
   c.
   d.

3. Pollution can be prevented by
   a.
   b.
   c.

4. For preventing pollution, the children can do a lot, such as
   a.
   b.
   c.

E. Get the following statements suitably tick marked (√) against a correct statement or cross marked (X) against a wrong one.

1. Man-made objects are always good.
2. Smoke does not cause any harm.
3. If the house is clean, environmental pollution does not affect the house.
4. Pollution does not cause any harm.

F. Get the following described by the children:
pollution, environment, atmosphere, safety, man-made objects, natural objects.

G. Get five sentences written about each of the following.

1. Five activities which cause pollution
   a.
   b.
   c.
   d.
   e.

2. Five activities which reduce pollution
   a.
   b.
   c.
   d.
   e.

H. Get the correct answer tick marked (√).

1. Which of the following is a man-made object?
   a. Water
   b. Bread
   c. Potato
   d. Soil

2. Which of the following is a natural object ?
   a. Cotton
   b. Polyester
   c. Cloth
   d. Shirt

OUR SKY

Revision of the previous work

Children are, by nature, curious to know what they see around. They have particular fascination for the objects and happenings of the sky. In Class I, their capability to identify objects visible in the sky during the day and at night, to describe differences between the day-sky and the night-sky and to describe their observations of the changes in the sky during the day itself was developed.

The children identify the sun, the moon, and the stars. They may have also learnt that birds and aeroplanes fly in the sky, the sky during the day and at night is different, the sky appears to be different during the day in the morning, at noon and in the evening. They acquired the competence to describe changes in the sky caused by sunrise.

Discussion on the extension of this information is aimed at. The sun is seen during the day, the moon and stars are normally seen at night but are sometimes seen during the day also. In the process of observation, it is proposed to lay emphasis on near and remote objects.

Overview of the Unit

This unit provides the opportunity for laying the foundation of further learning. During discussion, achievements of ancient India, such as the works of Aryabhatta and Bhaskaracharya may be taken up. In this unit the opportunity for making the children aware of India's greatness and glory is easily available.

Talking about mythological stories, the teacher may develop the scientific outlook in the children. The names of days have been derived from the names of these divine bodies. Their movement is rotational. Rotation is a standard measurement of time. For determining time and direction, the divine bodies are relied upon even today. The sun is the basis of east, west, north and south directions.

Excepting national festivals, most festivals are associated with the sun and the moon. Which are the festivals that fall on full-moon day and which on new moon days? Whether it is south India or north India, east India or west India, everywhere, most of the social festivals are celebrated according to these. It is also associated with 'hay' bete. Such discussions make teaching-learning interesting.

The children hear and read stories of heavenly bodies, constellations, the Pole Star etc. and are curious to know more. This unit is expected to provide opportunity to know the cultural aspect implied in the subject matter.

In continuation of the learning acquired in Class I, the children will learn to identify and name living and non-living flying objects and heavenly bodies, which include the sun, the moon and numerous stars. They have to make observations of visible

experiences pertaining to them. Stars appear to twinkle. The moon changes its shape — sometimes it appears like a shining plate and sometimes like a shining scythe. Through observation and practical experiences, they should be told that the sun gives heat and light. The sun is closely associated with day and the moon with night. Knowledge of directions is based on the sun. At night the Pole Star indicates the directions.

Essential Learning Outcomes

After going through the teaching-learning activities proposed in this unit, the children will be able to:

- name the sun and some living and some non-living objects seen in the sky during the day;
- observe and identify the moon, some stars, etc. seen in the sky at night;
- describe through observation that the moon changes its shape and stars appear to twinkle;
- describe a few changes seen and experienced during day and night in the sky;
- tell the four directions on the basis of
- describe their experiences that the sun gives heat and light.

Suggested Teaching-Learning Strategies

Teaching Aids

For teaching this unit, no special equipment is required. Learning is based on observations which are directly related to the environment. To make teaching-learning interesting, pictures and charts related to the sun, the moon, the Pole Star and other stars may prove useful.

Activities

The teacher encourages the children to observe divine bodies and gather information about objects seen in the sky. They should observe the sun, the moon, the stars and clouds. Discussions should be held keeping in view children's previous experiences and the proposed learning outcomes, question-answers and other activities such as dramatisation and story-telling may be employed in the teaching process.

> The children will be able to observe and name objects seen in the sky during the day and at night.

The teacher asks the children to observe carefully the sky from morning to evening. He tries to explain the relationship of the positions of the sun with morning, noon and evening. We call it daybreak when the sun rises and light spreads. Ordinarily the sun's presence indicates day and its absence indicates night. But questions like—will it not be day if the sun is not seen on a cloudy day, may be discussed.

[illegible] told that as hour, minute and second are units of time, so day and night are also units of time. Today children know about hour, minute and second. Shining a torch on a ball or a pitcher, it can be explained that the lighted part indicates day and the dark part stands for night. Activities are to be demonstrated, as from Class III onwards the children will start systematic activities. The teacher points out that night follows day and day follows night. (He may refer to the moon in the context of night.) He should ex-

plain that this is a periodic phenomenon which is appropriate for calculating time.

The sun gives us heat and light. This is felt in common experiences. The children may be encouraged to prove their experiences practically. It may be demonstrated that water kept in the sun gains temperature. The rays of the sun may be concentrated through a convex lens.

The children will be able to relate their activities and experiences to show that we get heat and light from the sun.

Activities

The children may be asked to observe regularly for some days from their houses from which direction the sun rises. They realise that the sun appears to rise from the same direction. This direction is called the East. Opposite to East is West. The perpendicular drawn on the line joining East and West indicates North and South. When we stand facing the sun, the direction in front is east, and towards the back is west. South is towards the right hand side and north is towards the left hand side. Though it is undesirable to look at the sun, the children may see the shape and the colour of the sun in the morning and in the evening. This enables them to talk about light and darkness, heat and cold in the morning, at noon and in the evening. Their attention may be drawn to the comparative sizes of the setting sun and the rising moon on a full-moon day.

The children will be able to describe changes which takes place in the sky during the day.

Activities

The children recognise the moon but may not differentiate between its shape and size. They may be encouraged to observe changes in the shape of the moon during the period from new-moon day to full-moon day and from full-moon day to new-moon day. They should note that the size of the moon does not change, only its shining area goes on increasing and decreasing. They may be asked to draw figures of the moon as they observe it. On some days like the full-moon day, the thirteenth day, the eighth day, the second day, etc. the bright area of the moon is better seen. If attention is paid, they may also observe to which side the brighter area of the moon is during the bright fortnight and during the dark fortnight. The teacher's own observations makes the teaching process interesting.

The children may be asked to observe the moon carefully. They may not be able to tell the direction in which the moon rises on different days and dates, but they may note to which side of their house the moon rises in front of the house, behind the house, on top of the house, or in some other familiar direction. They also observe how the brighter area goes on changing, when the complete area is bright and when no area is bright. They may be shown pictures of the changing phases of the moon which they may compare with their observation. The shape of the moon changes, not its size.The shape changes

due to change in the shining area. These are called phases of the moon. The relationship of the full-moon day and the new-moon day with the moon may be discussed.

> The children will be able to report that the moon sometimes appears to be fully shining, sometimes half shining and sometimes even less shining.

Activities

Besides the moon, stars are also seen in the sky. Can we count them? Stars are numerous. Let the children observe them carefully. Some stars appear to be twinkling. The children may be asked to recite related rhymes and poems. Models of constellations may also be shown. The story of Dhruva may be narrated and the implication of "Dhruva Satya" in the sense of firmness may be explained.

> The children will be able to recite some poems or rhymes on stars.

In short, activities based on children's observations and experiences should be organised.

Evaluation

At this stage, formal evaluation is not expected. It is expected to assess children's achievements informally. For evaluation of the outcomes related to the subject matter, question-answers, picture study, role of the children in games and their involvement in discussion may be assessed. The children may be asked to report their experiences orally and also describe them in short written sentences.

Objective type, fill-in-the-blanks type, true/false type questions may be used for evaluation. A few questions are suggested below.

A. Get the correct answer tick marked (√).

1. Name the object which does not shine at night.
   a. Pole Star
   b. Moon
   c. Sun
2. Which of the following is not a heavenly body ?
   a. Sun
   b. Moon
   c. Stars
   d. Aeroplane
3. Which is a heavenly body ?
   a. Sun
   b. Cloud
   c. Bird
   d. Kite
4. If the sun is not visible,
   a. there will be no day.
   b. there will be no night.
   c. there will be no rains.
   d. day time activities will continue.
5. How does the moon appear on a full-moon day?
   a. Fully shining
   b. Three-fourths shining
   c. Half shining
   d. One-fourth shining
6. On a new-moon day, how much of the moon is not seen ?
   a. Complete moon
   b. Three-fourths of the moon
   c. Half the moon
   d. One-fourth of the moon
7. Which is the heavenly body that

twinkles ?

a. Star
b. Sun
c. Moon
d. Venus

B. Get the blanks filled in with suitable words.

1. The sun is seen during the _____ .
2. The moon is seen at _____ .
3. Stars are generally seen at _____ .
4. The _____ of the moon goes on changing.
5. On a new-moon day, the moon is _____ seen.
6. On a full-moon day, the moon is seen _____ .
7. From the sun we get _____ and _____ .
8. The moon and _____ are among the heavenly bodies seen in the sky at night.
9. Among the objects seen in the sky during the day, the heavenly body is the _____ .

C. Get the following statements suitably tick marked (√) against the correct statement and cross marked (x) against the wrong one.

1. The sun is seen only during the day.
2. The moon is seen at night.
3. The sun gives light.
4. The sun gives heat.
5. Morning is cold due to the sun.
6. Noon is less hot than morning.
7. The size of the moon goes on changing.
8. On a full-moon day, the moon is not at all seen.
9. On a new-moon day, full moon is seen.
10. The sun gives light but not heat.
11. Sunday is also called the sun day.
12. Monday is also called the moon day.
13. The moon is a big star.
14. The Pole Star appears to be bigger than the moon.
15. The sun is not visible in the sky at night.
16. Nights are cool because of the moon and stars.
17. Stars cannot be counted.
18. If there had been no sun, there would have been no day.
19. If there had been no moon, there would have been no night.
20. As the sun appears to rise in one particular direction, the moon also rises in one direction.